X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags have been summarized at the end of the report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach
Semivolatiles - Data Qualification Summary - SDG IQC1776

SDG	Sample	Compound	Flag	A or P	Reason
IQC1776	MW3017_WG031507_0001	1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene Hexachlorobutadiene Hexachloroethane 1,2,4-Trichlorobenzene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(k)fluoranthene Benzyl alcohol Bis(2-chloroethoxy)methane Bis(2-chloroethyl) ether Bis(2-chloroisopropyl)ether Bis(2-ethylhexyl)phthalate 4-Bromophenyl-phenyl ether Butylbenzylphthalate 4-Chloroaniline 2-Chloronaphthalene 4-Chloro-3-methylphenol 2-Chlorophenol 4-Chlorophenyl-phenyl ether Chrysene Dibenzofuran 3,3'-Dichlorobenzidine 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4-Dinitrotoluene 2,6-Dinitrotoluene Di-n-octylphthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorocyclopentadiene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitroaniline Nitrobenzene 2-Nitrophenol N-Nitrosodiphenylamine N-Nitroso-di-n-propylamine Phenanthrene Phenol 2,4,5-Trichlorophenol N-Nitrosodimethylamine 1,2-Diphenylhydrazine/Azobenzene	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)(RPD)

Boeing Realty Corp., Bldg C-1 Long Beach
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017_WG031507_0001 - Water)									
Reporting Units: ug/l									
Acenaphthene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Acenaphthylene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Aniline	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Anthracene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Benzidine	EPA 8270C	7C16066	8.1	19	ND	0.948	03/16/07	03/20/07	
Benzoic acid	EPA 8270C	7C16066	8.1	19	ND	0.948	03/16/07	03/20/07	
Benzo(a)anthracene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Benzo(b)fluoranthene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Benzo(k)fluoranthene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Benzo(g,h,i)perylene	EPA 8270C	7C16066	2.8	9.5	ND	0.948	03/16/07	03/20/07	
Benzo(a)pyrene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Benzyl alcohol	EPA 8270C	7C16066	2.4	19	ND UJ	0.948	03/16/07	03/20/07	
Bis(2-chloroethoxy)methane	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Bis(2-chloroethyl)ether	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Bis(2-chloroisopropyl)ether	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Bis(2-ethylhexyl)phthalate	EPA 8270C	7C16066	3.8	47	ND	0.948	03/16/07	03/20/07	
4-Bromophenyl phenyl ether	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Butyl benzyl phthalate	EPA 8270C	7C16066	3.8	19	ND	0.948	03/16/07	03/20/07	
4-Chloroaniline	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
2-Chloronaphthalene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
4-Chloro-3-methylphenol	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
2-Chlorophenol	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
4-Chlorophenyl phenyl ether	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Chrysene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Dibenz(a,h)anthracene	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
Dibenzofuran	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Di-n-butyl phthalate	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
1,3-Dichlorobenzene	EPA 8270C	7C16066	2.8	9.5	ND UJ	0.948	03/16/07	03/20/07	L2
1,4-Dichlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	L2
1,2-Dichlorobenzene	EPA 8270C	7C16066	2.8	9.5	ND	0.948	03/16/07	03/20/07	L2
3,3-Dichlorobenzidine	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
2,4-Dichlorophenol	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Diethyl phthalate	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
2,4-Dimethylphenol	EPA 8270C	7C16066	3.3	19	ND UJ	0.948	03/16/07	03/20/07	
Dimethyl phthalate	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
4,6-Dinitro-2-methylphenol	EPA 8270C	7C16066	3.8	19	ND	0.948	03/16/07	03/20/07	
2,4-Dinitrophenol	EPA 8270C	7C16066	4.3	19	ND UJ	0.948	03/16/07	03/20/07	
2,4-Dinitrotoluene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
2,6-Dinitrotoluene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Di-n-octyl phthalate	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
Fluoranthene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

5/4/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017_WG031507_0001 - Water) - cont.									
Reporting Units: ug/l									
Fluorene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Hexachlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Hexachlorobutadiene	EPA 8270C	7C16066	3.3	9.5	ND	0.948	03/16/07	03/20/07	L2
Hexachlorocyclopentadiene	EPA 8270C	7C16066	4.7	19	ND	0.948	03/16/07	03/20/07	
Hexachloroethane	EPA 8270C	7C16066	2.8	9.5	ND	0.948	03/16/07	03/20/07	L2
Indeno(1,2,3-cd)pyrene	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
Isophorone	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
2-Methylnaphthalene	EPA 8270C	7C16066	1.9	9.5	13 J	0.948	03/16/07	03/20/07	
2-Methylphenol	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
4-Methylphenol	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Naphthalene	EPA 8270C	7C16066	2.4	9.5	16 J	0.948	03/16/07	03/20/07	
2-Nitroaniline	EPA 8270C	7C16066	1.9	19	ND UJ	0.948	03/16/07	03/20/07	
3-Nitroaniline	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
4-Nitroaniline	EPA 8270C	7C16066	2.4	19	ND	0.948	03/16/07	03/20/07	
Nitrobenzene	EPA 8270C	7C16066	2.4	19	ND	0.948	03/16/07	03/20/07	
2-Nitrophenol	EPA 8270C	7C16066	3.3	9.5	ND	0.948	03/16/07	03/20/07	
4-Nitrophenol	EPA 8270C	7C16066	5.2	19	ND	0.948	03/16/07	03/20/07	
N-Nitrosodiphenylamine	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
N-Nitroso-di-n-propylamine	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	C
Pentachlorophenol	EPA 8270C	7C16066	3.3	19	ND	0.948	03/16/07	03/20/07	
Phenanthrene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Phenol	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Pyrene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
1,2,4-Trichlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND UJ	0.948	03/16/07	03/20/07	L2
2,4,5-Trichlorophenol	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
2,4,6-Trichlorophenol	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
N-Nitrosodimethylamine	EPA 8270C	7C16066	2.4	19	ND UJ	0.948	03/16/07	03/20/07	
1,2-Diphenylhydrazine/Azobenzene	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	C
Surrogate: 2-Fluorophenol (30-120%)					*65 %*				
Surrogate: Phenol-d6 (35-120%)					*73 %*				
Surrogate: 2,4,6-Tribromophenol (40-120%)					*83 %*				
Surrogate: Nitrobenzene-d5 (40-120%)					*79 %*				
Surrogate: 2-Fluorobiphenyl (45-120%)					*67 %*				
Surrogate: Terphenyl-d14 (45-120%)					*71 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

LDC #: 16591B2
SDG #: IQC1776
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
Tier 3

Date: 4/26/07
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/15/07
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD, r^2 ≥ 0.990
IV.	Continuing calibration	A	ICV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	not reported
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: water

4	1	MW3017-WG031507_0001	11	IC16066-BLK1	21		31	
	2		12		22		32	
	3		13		23		33	
	4		14		24		34	
	5		15		25		35	
	6		16		26		36	
	7		17		27		37	
	8		18		28		38	
	9		19		29		39	
	10		20		30		40	

LDC #: 16591B2
SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 16591B2
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: B
2nd Reviewer: R

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?				
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.				
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

A. Phenol**	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol**	III. Benzo(a)pyrene**
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol**	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene**	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol*	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene**	T. 4-Chloroaniline	II. 4-Nitrophenol*	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene**	JJ. Dibenzofuran	YY. Fluoranthene**	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol**	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene*	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine*	Y. 2,4,6-Trichlorophenol**	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. Azobenzene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)**	FFF. Di-n-octylphthalate**	UUU.
N. 2-Nitrophenol**	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 16371B1 ✓
SDG #: KQ C1776

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: P
2nd Reviewer: L

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

[✓ Y] N N/A Was a LCS required?
Y [✓ N] N/A Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		7C16066-LCS/D	D	29 (35-120)	( )	( )	All + Blk	J/UJ/P
			E	34 (35-120)	( )	( )		
			F	35 (40-120)	( )	( )		
			U	37 (40-120)	( )	( )		
			K	28 (35-120)	( )	( )		
			R	41 (45-120)	( )	( )		
				( )	( )	( )		
				( )	( )	(per attached for		RPD's all J/UJ/P
				( )	( )	( )	RPD limit ≤ 20	
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LCSLCSD.2S

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
Blank Analyzed: 03/19/2007 (7C16066-BLK1)											
Surrogate: Phenol-d6	*13.6*			*ug/l*	*20.0*		*68*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*13.2*			*ug/l*	*20.0*		*66*	*40-120*			
Surrogate: Nitrobenzene-d5	*5.90*			*ug/l*	*10.0*		*59*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*7.14*			*ug/l*	*10.0*		*71*	*45-120*			
Surrogate: Terphenyl-d14	*7.38*			*ug/l*	*10.0*		*74*	*45-120*			
LCS Analyzed: 03/19/2007 (7C16066-BS1)											**MNR1**
Acenaphthene	64.6	10	2.0	ug/l	100		65	55-120			
Acenaphthylene	72.4	10	2.0	ug/l	100		72	60-120			
Aniline	78.3	10	2.5	ug/l	100		78	40-120			
Anthracene	72.1	10	2.0	ug/l	100		72	60-120			
Benzidine	147	20	8.5	ug/l	100		147	25-160			
Benzoic acid	31.7	20	8.5	ug/l	100		32	25-120			
Benzo(a)anthracene	71.5	10	2.0	ug/l	100		72	60-120			
Benzo(b)fluoranthene	82.5	10	2.0	ug/l	100		82	55-125			
Benzo(k)fluoranthene	82.9	10	2.0	ug/l	100		83	50-125			
Benzo(g,h,i)perylene	98.0	10	3.0	ug/l	100		98	45-130			
Benzo(a)pyrene	88.8	10	2.0	ug/l	100		89	55-125			
Benzyl alcohol	61.3	20	2.5	ug/l	100		61	50-120			
Bis(2-chloroethoxy)methane	62.3	10	2.0	ug/l	100		62	55-120			
Bis(2-chloroethyl)ether	54.6	10	2.5	ug/l	100		55	50-120			
Bis(2-chloroisopropyl)ether	55.2	10	2.5	ug/l	100		55	45-120			
Bis(2-ethylhexyl)phthalate	69.2	50	4.0	ug/l	100		69	60-125			
4-Bromophenyl phenyl ether	66.5	10	2.5	ug/l	100		66	55-120			
Butyl benzyl phthalate	68.1	20	4.0	ug/l	100		68	50-125			
4-Chloroaniline	63.7	10	2.0	ug/l	100		64	50-120			
2-Chloronaphthalene	61.8	10	2.0	ug/l	100		62	55-120			
4-Chloro-3-methylphenol	61.4	20	2.0	ug/l	100		61	55-120			
2-Chlorophenol	57.6	10	2.0	ug/l	100		58	45-120			
4-Chlorophenyl phenyl ether	63.9	10	2.0	ug/l	100		64	60-120			
Chrysene	69.5	10	2.0	ug/l	100		70	60-120			
Dibenz(a,h)anthracene	94.5	20	3.0	ug/l	100		94	50-135			
Dibenzofuran	64.0	10	2.0	ug/l	100		64	60-120			
Di-n-butyl phthalate	75.7	20	2.0	ug/l	100		76	55-125			
1,3-Dichlorobenzene	29.3	10	3.0	ug/l	100		29	35-120	D		*L2*
1,4-Dichlorobenzene	34.4	10	2.5	ug/l	100		34	35-120	E		*L2*

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
LCS Analyzed: 03/19/2007 (7C16066-BS1)											MNR1
1,2-Dichlorobenzene	35.3	10	3.0	ug/l	100		35	40-120	F		L2
3,3-Dichlorobenzidine	68.8	20	3.0	ug/l	100		69	50-135			
2,4-Dichlorophenol	56.7	10	2.0	ug/l	100		57	50-120			
Diethyl phthalate	69.3	10	2.0	ug/l	100		69	50-120			
2,4-Dimethylphenol	45.8	20	3.5	ug/l	100		46	35-120			
Dimethyl phthalate	60.9	10	2.0	ug/l	100		61	25-120			
4,6-Dinitro-2-methylphenol	71.9	20	4.0	ug/l	100		72	40-120			
2,4-Dinitrophenol	68.7	20	4.5	ug/l	100		69	35-120			
2,4-Dinitrotoluene	74.4	10	2.0	ug/l	100		74	60-120			
2,6-Dinitrotoluene	67.9	10	2.0	ug/l	100		68	60-120			
Di-n-octyl phthalate	70.1	20	2.0	ug/l	100		70	60-130			
Fluoranthene	76.3	10	2.0	ug/l	100		76	55-120			
Fluorene	63.5	10	2.0	ug/l	100		64	60-120			
Hexachlorobenzene	69.1	10	2.5	ug/l	100		69	55-120			
Hexachlorobutadiene	36.9	10	3.5	ug/l	100		37	40-120	U		L2
Hexachlorocyclopentadiene	34.2	20	5.0	ug/l	100		34	20-120			
Hexachloroethane	27.9	10	3.0	ug/l	100		28	35-120	K		L2
Indeno(1,2,3-cd)pyrene	95.4	20	3.0	ug/l	100		95	45-135			
Isophorone	52.4	10	2.0	ug/l	100		52	50-120			
2-Methylnaphthalene	58.0	10	2.0	ug/l	100		58	50-120			
2-Methylphenol	59.6	10	2.0	ug/l	100		60	50-120			
4-Methylphenol	63.4	10	2.0	ug/l	100		63	45-120			
Naphthalene	55.7	10	2.5	ug/l	100		56	50-120			
2-Nitroaniline	66.6	20	2.0	ug/l	100		67	60-120			
3-Nitroaniline	82.9	20	2.0	ug/l	100		83	55-120			
4-Nitroaniline	85.9	20	2.5	ug/l	100		86	50-125			
Nitrobenzene	52.0	20	2.5	ug/l	100		52	50-120			
2-Nitrophenol	58.6	10	3.5	ug/l	100		59	45-120			
4-Nitrophenol	68.6	20	5.5	ug/l	100		69	40-120			
N-Nitrosodiphenylamine	64.2	10	2.0	ug/l	100		64	55-120			
N-Nitroso-di-n-propylamine	54.1	10	2.5	ug/l	100		54	45-120			
Pentachlorophenol	83.2	20	3.5	ug/l	100		83	45-125			
Phenanthrene	70.3	10	2.0	ug/l	100		70	60-120			
Phenol	58.2	10	2.0	ug/l	100		58	45-120			
Pyrene	67.8	10	2.0	ug/l	100		68	50-125			

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
LCS Analyzed: 03/19/2007 (7C16066-BS1)											MNR1
1,2,4-Trichlorobenzene	40.7	10	2.5	ug/l	100		41	45-120	R		L2
2,4,5-Trichlorophenol	61.9	20	3.0	ug/l	100		62	50-120			
2,4,6-Trichlorophenol	63.2	20	3.0	ug/l	100		63	50-120			
N-Nitrosodimethylamine	51.3	20	2.5	ug/l	100		51	40-120			
1,2-Diphenylhydrazine/Azobenzene	64.0	20	2.0	ug/l	100		64	55-120			
Surrogate: 2-Fluorophenol	*10.9*			*ug/l*	*20.0*		*54*	*30-120*			
Surrogate: Phenol-d6	*11.4*			*ug/l*	*20.0*		*57*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*14.1*			*ug/l*	*20.0*		*70*	*40-120*			
Surrogate: Nitrobenzene-d5	*5.54*			*ug/l*	*10.0*		*55*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*6.42*			*ug/l*	*10.0*		*64*	*45-120*			
Surrogate: Terphenyl-d14	*6.96*			*ug/l*	*10.0*		*70*	*45-120*			
LCS Dup Analyzed: 03/19/2007 (7C16066-BSD1)											
Acenaphthene	90.2	10	2.0	ug/l	100		90	55-120	33	20 GG	R-7
Acenaphthylene	98.1	10	2.0	ug/l	100		98	60-120	30	20 DD	R-7
Aniline	82.9	10	2.5	ug/l	100		83	40-120	6	30	
Anthracene	90.8	10	2.0	ug/l	100		91	60-120	23	20 VV	R-7
Benzidine	149	20	8.5	ug/l	100		149	25-160	1	35	
Benzoic acid	32.5	20	8.5	ug/l	100		32	25-120	2	30	
Benzo(a)anthracene	90.6	10	2.0	ug/l	100		91	60-120	24	20 CCC	R-7
Benzo(b)fluoranthene	99.2	10	2.0	ug/l	100		99	55-125	18	25	
Benzo(k)fluoranthene	104	10	2.0	ug/l	100		104	50-125	23	20 HHH	R-7
Benzo(g,h,i)perylene	117	10	3.0	ug/l	100		117	45-130	18	25	
Benzo(a)pyrene	108	10	2.0	ug/l	100		108	55-125	20	25	
Benzyl alcohol	85.6	20	2.5	ug/l	100		86	50-120	33	20 QQQ	R-7
Bis(2-chloroethoxy)methane	85.8	10	2.0	ug/l	100		86	55-120	32	20 P	R-7
Bis(2-chloroethyl)ether	74.2	10	2.5	ug/l	100		74	50-120	30	20 B	R-7
Bis(2-chloroisopropyl)ether	75.8	10	2.5	ug/l	100		76	45-120	31	20 MMM	R-7
Bis(2-ethylhexyl)phthalate	89.2	50	4.0	ug/l	100		89	60-125	25	20 EEE	R-7
4-Bromophenyl phenyl ether	89.2	10	2.5	ug/l	100		89	55-120	29	25 RR	R-7
Butyl benzyl phthalate	88.2	20	4.0	ug/l	100		88	50-125	26	20 AAA	R-7
4-Chloroaniline	88.2	10	2.0	ug/l	100		88	50-120	32	25 T	R-7
2-Chloronaphthalene	85.1	10	2.0	ug/l	100		85	55-120	32	20 AA	R-7
4-Chloro-3-methylphenol	85.6	20	2.0	ug/l	100		86	55-120	33	25 V	R-7
2-Chlorophenol	78.1	10	2.0	ug/l	100		78	45-120	30	25 C	R-7
4-Chlorophenyl phenyl ether	89.0	10	2.0	ug/l	100		89	60-120	33	20 MM	R-7

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
LCS Dup Analyzed: 03/19/2007 (7C16066-BSD1)											
Chrysene	92.3	10	2.0	ug/l	100		92	60-120	28	20 DDD	R-7
Dibenz(a,h)anthracene	113	20	3.0	ug/l	100		113	50-135	18	25	
Dibenzofuran	87.7	10	2.0	ug/l	100		88	60-120	31	20 JJ	R-7
Di-n-butyl phthalate	90.8	20	2.0	ug/l	100		91	55-125	18	20	
1,3-Dichlorobenzene	41.4	10	3.0	ug/l	100		41	35-120	34	25 D-	R-2
1,4-Dichlorobenzene	45.3	10	2.5	ug/l	100		45	35-120	27	25 E-	R-2
1,2-Dichlorobenzene	48.2	10	3.0	ug/l	100		48	40-120	31	25 F-	R-2
3,3-Dichlorobenzidine	93.8	20	3.0	ug/l	100		94	50-135	31	25 BBB	R-7
2,4-Dichlorophenol	79.1	10	2.0	ug/l	100		79	50-120	33	20 QQ	R-7
Diethyl phthalate	88.0	10	2.0	ug/l	100		88	50-120	24	30	
2,4-Dimethylphenol	67.9	20	3.5	ug/l	100		68	35-120	39	25 O	R-7
Dimethyl phthalate	79.9	10	2.0	ug/l	100		80	25-120	27	30	
4,6-Dinitro-2-methylphenol	89.2	20	4.0	ug/l	100		89	40-120	21	25	
2,4-Dinitrophenol	89.6	20	4.5	ug/l	100		90	35-120	26	25 HH	R-7
2,4-Dinitrotoluene	94.7	10	2.0	ug/l	100		95	60-120	24	20 KK	R-7
2,6-Dinitrotoluene	91.8	10	2.0	ug/l	100		92	60-120	30	20 EE	R-7
Di-n-octyl phthalate	94.5	20	2.0	ug/l	100		94	60-130	30	20 FFF	R-7
Fluoranthene	94.1	10	2.0	ug/l	100		94	55-120	21	20 YY	R-7
Fluorene	89.1	10	2.0	ug/l	100		89	60-120	34	20 NN	R-7
Hexachlorobenzene	88.1	10	2.5	ug/l	100		88	55-120	24	20 SS	R-7
Hexachlorobutadiene	50.8	10	3.5	ug/l	100		51	40-120	32	25 U-	R-2
Hexachlorocyclopentadiene	71.2	20	5.0	ug/l	100		71	20-120	70	30 X	R-7
Hexachloroethane	38.6	10	3.0	ug/l	100		39	35-120	32	25 K-	R-2
Indeno(1,2,3-cd)pyrene	113	20	3.0	ug/l	100		113	45-135	17	25	
Isophorone	72.0	10	2.0	ug/l	100		72	50-120	32	20 M	R-7
2-Methylnaphthalene	79.6	10	2.0	ug/l	100		80	50-120	31	20 W	R-7
2-Methylphenol	82.8	10	2.0	ug/l	100		83	50-120	33	20 G	R-7
4-Methylphenol	85.5	10	2.0	ug/l	100		86	45-120	30	20 I	R-7
Naphthalene	74.9	10	2.5	ug/l	100		75	50-120	29	20 S	R-7
2-Nitroaniline	92.3	20	2.0	ug/l	100		92	60-120	32	20 BB	R-7
3-Nitroaniline	112	20	2.0	ug/l	100		112	55-120	30	25 FF	R-7
4-Nitroaniline	113	20	2.5	ug/l	100		113	50-125	27	20 OO	R-7
Nitrobenzene	73.2	20	2.5	ug/l	100		73	50-120	34	25 L	R-7
2-Nitrophenol	85.2	10	3.5	ug/l	100		85	45-120	37	25 N	R-7
4-Nitrophenol	90.2	20	5.5	ug/l	100		90	40-120	34	30	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
LCS Dup Analyzed: 03/19/2007 (7C16066-BSD1)											
N-Nitrosodiphenylamine	81.3	10	2.0	ug/l	100		81	55-120	24	20 QQ	R-7
N-Nitroso-di-n-propylamine	74.7	10	2.5	ug/l	100		75	45-120	32	20 J	R-7
Pentachlorophenol	106	20	3.5	ug/l	100		106	45-125	24	25	
Phenanthrene	87.3	10	2.0	ug/l	100		87	60-120	22	20 UU	R-7
Phenol	78.3	10	2.0	ug/l	100		78	45-120	29	25 A	R-7
Pyrene	83.6	10	2.0	ug/l	100		84	50-125	21	25	
1,2,4-Trichlorobenzene	58.0	10	2.5	ug/l	100		58	45-120	35	20 R—	R-2
2,4,5-Trichlorophenol	88.2	20	3.0	ug/l	100		88	50-120	35	30 Z	R-7
2,4,6-Trichlorophenol	84.6	20	3.0	ug/l	100		85	50-120	29	30	
N-Nitrosodimethylamine	69.6	20	2.5	ug/l	100		70	40-120	30	20 ooo	R-7
1,2-Diphenylhydrazine/Azobenzene	84.3	20	2.0	ug/l	100		84	55-120	27	25	R-7
Surrogate: 2-Fluorophenol	*14.9*			*ug/l*	*20.0*		*74*	*30-120*			
Surrogate: Phenol-d6	*15.9*			*ug/l*	*20.0*		*80*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*19.0*			*ug/l*	*20.0*		*95*	*40-120*			
Surrogate: Nitrobenzene-d5	*7.64*			*ug/l*	*10.0*		*76*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*8.82*			*ug/l*	*10.0*		*88*	*45-120*			
Surrogate: Terphenyl-d14	*8.86*			*ug/l*	*10.0*		*89*	*45-120*			

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

LDC #: 4125 V1.0 2
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: P
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard
S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (80 std)	Recalculated RRF (80 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL-8	3/3/07	Phenol (1st Internal standard)	2.111	2.11	2.125	2.125	4.01	4.01
			Naphthalene (2nd internal standard)	1.036	1.036	1.030	1.030	5.90	5.90
			Fluorene (3rd internal standard)	1.321	1.321	1.268	1.268	9.44	9.44
			~~Pentachlorophenol~~ Anthracene (4th Internal standard)	~~1.180~~ 1.093	1.093	~~1.055~~ 1.059	1.059	7.16	7.16
			Bis(2-ethylhexyl)phthalate (5th Internal standard)	1.396	1.396	1.308	1.308	3.67	3.67
			Benzo(a)pyrene (6th Internal standard)	1.205	1.205	1.192	1.192	8.89	8.89
2			Phenol (1st internal standard)						
			Naphthalene (2nd Internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B2
SDG #: cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of
Reviewer: AT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	ccv	3/20/07	Phenol (1st internal standard)	2.125	2.072	2.072	2.5	2.5
			Naphthalene (2nd internal standard)	1.030	1.092	1.092	6.0	6.0
			Fluorene (3rd internal standard)	1.268	1.323	1.323	4.3	4.3
			~~Anthracene~~ Pentachlorophenol (4th internal standard)	1.059	1.117	1.117	5.5	5.5
			Bis(2-ethylhexyl)phthalate (5th internal standard)	1.308	1.392	1.392	6.4	6.4
			Benzo(a)pyrene (6th internal standard)	1.192	1.192	1.192	0.0	0.0
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B2
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: A
2nd reviewer: N

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	5	3.95	79	79	0
2-Fluorobiphenyl	↓	3.37	67	67	↓
Terphenyl-d14	↓	3.56	71	71	↓
Phenol-d5	10	7.29	73	73	↓
2-Fluorophenol	↓	6.49	65	65	↓
2,4,6-Tribromophenol	↓	8.30	83	83	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 16591B2
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration, SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboratory control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 7C160066-LCS1D

Compound	Spike Added (ng/L)		Spike Concentration (ng/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	100		58.2	78.3	58	58	78	78	29	29
N-Nitroso-di-n-propylamine			54.1	74.7	54	54	75	75	32	32
4-Chloro-3-methylphenol			61.4	85.6	61	61	86	86	33	33
Acenaphthene			64.6	90.2	65	65	90	90	33	33
Pentachlorophenol			83.2	106	83	83	106	106	24	24
Pyrene			67.8	83.6	68	60	84	84	21	21

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B2
SDG #: all covers

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer:
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. FB1 . Naphthalene

Conc. = $\frac{(365945)(40)(2.)(1000)(\quad)}{(165^{(}4509)(1.030)(1055^{*})(\quad)}$

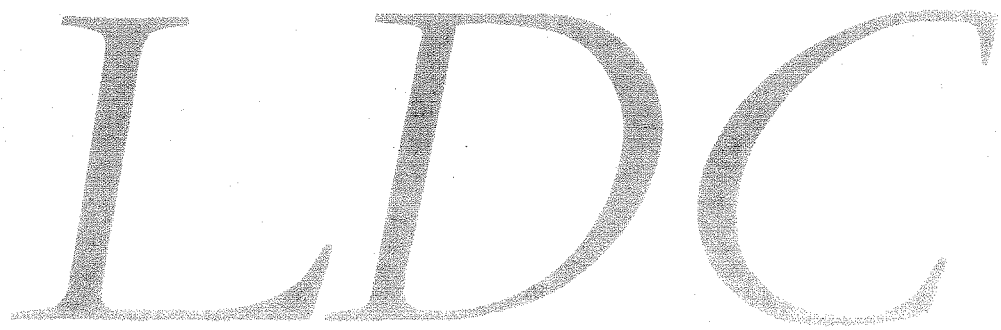
= 16 ug/L

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

RECALC.2S

Boeing Realty Corp., Bldg C-1 Long Beach
Data Validation Reports
LDC# 16591

Hexavalent Chromium



Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date: March 8, 2007

LDC Report Date: April 26, 2007

Matrix: Water

Parameters: Hexavalent chromium

Validation Level: Tier 1, 2, & 3

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC0980

Sample Identification

MW3009_WG030807_0001
MW3012_WG030807_0001*
MW3012_WG030807_0002**

*Indicates sample underwent Tier 2 review
**Indicates sample underwent Tier 3 review
All other samples underwent Tier 1 review

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7196A for Hexavalent chromium.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Samples indicated by a double asterisk on the front cover underwent a Tier 3 review. A Tier 2 or Tier 1 review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Tier 2 or Tier 1 criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

Initial calibration data were not reviewed for Tier I.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

Calibration verification data were not reviewed for Tier I.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

All sample result verifications were acceptable for samples on which a Tier 3 review was performed. Raw data were not evaluated for the samples reviewed by Tier 2 or Tier 1 criteria.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD
	MW3012_WG030807_0001*	MW3012_WG030807_0002**	
Hexavalent chromium	1.3	0.98	28

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach
Hexavalent chromium - Data Qualification Summary - SDG IQC0980

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-1 Long Beach
Hexavalent chromium - Laboratory Blank Data Qualification Summary - SDG IQC0980

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701-05
Report Number: IQC0980

Sampled: 03/08/07
Received: 03/08/07

INORGANICS

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC0980-01 (TB_TAIT030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	ND	1	03/08/07	03/08/07	
Sample ID: IQC0980-02 (MW3009_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	ND	1	03/08/07	03/08/07	
Sample ID: IQC0980-03 (MW3016_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**11**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-04 (MW3015_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**49**	1	03/08/07	03/08/07	
Sample ID: IQC0980-05 (MW3014_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**13**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-06 (MW3013_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**3.4**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-07 (MW3012_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**1.3**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-08 (MW3012_WG030807_0002 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**0.98**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-09 (MW3011_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**4.7**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-10 (MW3010_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	3.2	120	**140**	5	03/08/07	03/08/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/14/2007

LDC #: 16591A6
SDG #: IQC0980
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
Tier 1/2/3

Date: 4/21/07
Page: 1 of 1
Reviewer: W
2nd Reviewer: A

METHOD: Hexavalent Chromium (EPA SW846 Method 7196A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/8/07
IIa.	Initial calibration	A	Not reviewed for Tier I validation.
IIb.	Calibration verification	A	Not reviewed for Tier I validation.
III.	Blanks	A	
IVa.	Matrix Spike/(Matrix Spike) Duplicates	A	MS/MSD IQC0980-01
IVb.	Laboratory control samples	A	LCS
V.	Sample result verification	A	Not reviewed for Tier I or Tier II validation.
VI.	Overall assessment of data	A	
VII.	Field duplicates	SW	(2,3)
VIII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: * Indicates sample underwent Tier II validation, ** Indicates sample underwent Tier III validation

1	MW3009_WG030807_0001	11		21		31	
2	MW3012_WG030807_0001*	12		22		32	
3	MW3012_WG030807_0002**	13		23		33	
4	MB	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 16591A6
SDG #: See cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: MM
2nd Reviewer: M

Method: Inorganics (EPA Method 7196A)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix Spike/Matrix Spike Duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were < 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 16891K6
SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: MY
2nd Reviewer: [signature]

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
X. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

LDC#: 16591A6
SDG#: IQC0980

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [signature]
2nd Reviewer: [signature]

Inorganics, Method 7196A

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (ug/L)		RPD	
	2	3		
Cr (VI)	1.3	0.98	28	

V:\FIELD DUPLICATES\FD_inorganic\16591A6.wpd

LDC #: 16891A6
SDG #: 1 en con

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: MY
2nd Reviewer: M

METHOD: Inorganics, Method 7196A

The correlation coefficient (r) for the calibration of CV6+ was recalculated. Calibration date: 3/8/17

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of Analysis	Analyte		conc. (mg/L) (units)	AA (units)	Recalculated r or %R	Reported r or %R	Acceptable (Y/N)
Initial calibration	CV6+	Blank	0	0	r=0.99997	r=0.99998	Y
Calibration verification		Standard 1	0.01	0.007			
		Standard 2	0.025	0.023			
		Standard 3	0.1	0.083			
		Standard 4	0.5	0.414			
		Standard 5					
		Standard 6					
		Standard 7					
Calibration verification ICV	CV6+	0.1	0.101		101	NR	Y
Calibration verification CCV	CV6+	0.3	0.310		103	NR	Y
Calibration verification							

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 1659|A6
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: MM
2nd Reviewer: [illegible]

METHOD: Inorganics, Method 9196A

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{Found}{True} \times 100$$ Where,

Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).

True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$ Where,

S = Original sample concentration

D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	Cr6+	101	100	101	101	Y
IPC6980-01	Matrix spike sample		(SSR-SR) 305	300	102	102	
	Duplicate sample		304	305	0	0	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.6

LDC #: 16819A4
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: MM
2nd reviewer: N

METHOD: Inorganics, Method 7196A

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Have results been reported and calculated correctly?
(Y) N N/A Are results within the calibrated range of the instruments?
(Y) N N/A Are all detection limits below the CRQL?

Compound (analyte) results for 3 reported with a positive detect were recalculated and verified using the following equation:

Concentration =

$Cr^{6+}_2 \frac{blks - 0.000292}{0.827}$

Recalculation:

$Cr^{6+}_2 \frac{0.001 - 0.000292}{0.827} = 0.000086\ mg/L$

$= 0.86\ ug/L$

#	Sample ID	Analyte	Reported Concentration (ug/L)	Calculated Concentration (ug/L)	Acceptable (Y/N)
1	3	Cr^{6+}	0.98	0.86	Y

Note: carry 3 decimal points on print out for blks.

Boeing Realty Corp., Bldg C-1 Long Beach
Data Validation Reports
LDC# 16591

TPH as Extractables

LDC

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date: March 15, 2007

LDC Report Date: April 30, 2007

Matrix: Water

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Tier 3

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC1776

Sample Identification

MW3017_WG031507_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report if data has been summarized.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-1 Long Beach
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

HYDROCARBON DISTRIBUTION (EPA 3510C/8015 Mod.)

Analyte	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	% of Total	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017_WG031507_0001 - Water)									
Reporting Units: mg/l									
EFH (C6 - C44)	7C22062	0.094	0.47	**4.9**	1	100	3/22/2007	3/22/2007	
EFH (C6 - C7)	7C22062	0.094	0.094	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C8 - C9)	7C22062	0.094	0.094	**0.15**	1	3	3/22/2007	3/22/2007	
EFH (C10 - C11)	7C22062	0.094	0.094	**0.79**	1	16	3/22/2007	3/22/2007	
EFH (C12 - C13)	7C22062	0.094	0.094	**1.1**	1	22	3/22/2007	3/22/2007	
EFH (C14 - C15)	7C22062	0.094	0.094	**1.4**	1	29	3/22/2007	3/22/2007	
EFH (C16 - C17)	7C22062	0.094	0.094	**0.93**	1	19	3/22/2007	3/22/2007	
EFH (C18 - C19)	7C22062	0.094	0.094	**0.29**	1	6	3/22/2007	3/22/2007	
EFH (C20 - C23)	7C22062	0.042	0.042	**0.084**	1	2	3/22/2007	3/22/2007	
EFH (C24 - C27)	7C22062	0.042	0.042	**0.045**	1	1	3/22/2007	3/22/2007	
EFH (C28 - C31)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C32 - C35)	7C22062	0.094	0.094	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C36 - C39)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C40 - C44)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
Surrogate: n-Octacosane (40-125%)				*97 %*					

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/14/2007

LDC #: 16591B8
SDG #: IQC1776
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
EPA Region 1 - Tier 3

Date: 4/25/07
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/15/07
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IVa.	Surrogate recovery	A	
IVb.	Matrix spike/Matrix spike duplicates	N	client specified
IVc.	Laboratory control samples	A	LCS/D
V.	Target compound identification	A	
VI.	Compound Quantitation and CRQLs	A	
VII.	System Performance	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	MW3017-WG031507_0001	11	TCL2062-BLK1	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 165913 8
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: ____ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?		✓		
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ____%D or ____%R	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 15%.0 or percent recoveries 85-115%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓	✓	
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			

LDC #: 16591B8
SDG #: pw cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Were field duplicate pairs identified in this SDG?		✓		
Were target compounds idetected in the field duplicates?			✓	
XV. Field blanks				
Were field blanks identified in this SDG?		✓		
Were target compounds detected in the field blanks?			✓	

LDC #: 16591B8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (750 std)	Recalculated CF (750 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/3/07	EFH	2873.4	2873.4	2787.17	2787.17	11.14	11.14
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC _____ HPLC ✓

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %R	Recalculated %R
1	CCV	3/22/07 6:55	EFH	750	740.3494	74035	99	99
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 165918B
SDG #: see cover

METHOD: GC / HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: SV
2nd reviewer: [illegible]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
n-octacosane	not specified	100	97.4363	97	97	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 16591B8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: M
2nd Reviewer: A

_____METHOD: __GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample duplicate

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

LCS/LCSD samples: 7C22062-BS1

Compound	Spike Added (mg/L)		Sample Conc. (mg/L)	Spike Sample Concentration (mg/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	---	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
EFH	1.0	1.0	0	0.931	0.806	93	93	81	81	14	14

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B8
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: __ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name EFH C_6-C_{44}

Concentration = $\frac{145622237.58 \quad (1)}{2787.17 \quad (1060)}$

$= 4.9$ mg/L

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

BOE-C6-0054477

Attachment 1

LDC #16739 (Tait Environmenal Management, Inc. / Boeing Realty Corp., Bldg C-1 Long Beach)

LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (8260B)		Mn (6010B)		Diss. Gases (175)		Alk. (310.1)		NH_3 (350.3)		Cl,SO_4 $O\text{-}PO_4$ (300.0)		$NO_3\text{-}N$ $NO_2\text{-}N$ (300.0)		S= (376.2)		TOC (415.1)															
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	IQC1612	05/03/07	05/24/07	6	0	2	0	2	0	2	0	2	0	2	0	2	0	-	-	2	0	Tier I													
B	IQC2470	05/03/07	05/24/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	Tier I													
B	IQC2470	05/03/07	05/24/07	4	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0														
C	IQC2895	05/03/07	05/24/07	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0														
Total	B/SC			11	0	4	0	4	0	0	0	4	0	4	0	4	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38

Shaded cells indicate Tier III validation (all other cells are Tier II validation). Sample counts do not include MS, MSD, or DUP's.

16739ST.wpd

LABORATORY DATA CONSULTANTS, INC.
7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Tait Environmental Management, Inc.
701 N. Park Center Drive
Santa Ana, CA 92705
ATTN: Ms. Clara Boeru

May 11, 2007

SUBJECT: Boeing Realty Corp. Bldg C-6 Torrance, Data Validation

Dear Ms. Boeru,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on May 3, 2007. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 16739:

SDG #	Fraction
IQC1612, IQC2470, IQC2895	Volatiles,Maganese, Wet Chemistry, Dissolved Gases

The data validation was performed under Tier 1, Tier 2 and Tier 3 guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 1999
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998

Please feel free to contact us if you have any questions.

Sincerely,

Stella S. Cuenco
Project Manager/Senior Chemist

16739COV.wpd

Attachment 1

LDC #16739 (Tait Environmenal Management, Inc. / Boeing Realty Corp., Bldg C-6 Torrance)

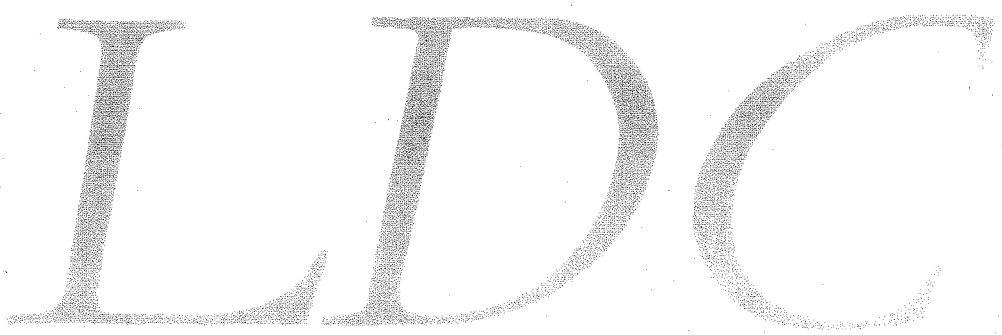
LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (8260B)		Mn (6010B)		Diss. Gases (175)		Alk. (310.1)		NH_3 (350.3)		Cl, SO_4 $O\text{-}PO_4$ (300.0)		$NO_3\text{-}N$ $NO_2\text{-}N$ (300.0)		S= (376.2)		TOC (415.1)															
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	IQC1612	05/03/07	05/24/07	6	0	2	0	2	0	2	0	2	0	2	0	2	0	-	-	2	0	Tier I													
B	IQC2470	05/03/07	05/24/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	Tier I													
B	IQC2470	05/03/07	05/24/07	4	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0														
C	IQC2895	05/03/07	05/24/07	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0														
Total	B/SC			11	0	4	0	4	0	0	0	4	0	4	0	4	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38

Shaded cells indicate Tier III validation (all other cells are Tier II validation). Sample counts do not include MS, MSD, or DUP's.

16739ST.wpd

Boeing Realty Corp., Bldg C-6 Torrance
Data Validation Reports
LDC# 16739

Volatiles



Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 14, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Volatiles

Validation Level: Tier 1

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC1612

Sample Identification

MWB013_WG031407_0001
MWG004_WG031407_0001
TMW_14_WG031407_0001
TMW_11_WG031407_0001
WCC_5S_WG031407_0001
MWC021_WG031407_0001
MWB013_WG031407_0001MS
MWB013_WG031407_0001MSD

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance data were not reviewed for Tier 1.

III. Initial Calibration

Initial calibration data were not reviewed for Tier 1.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Tier 1.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Tier 1.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Volatiles - Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Volatiles - Laboratory Blank Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-05 (MWB013_WG031407_0001 - Water)									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/16/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	**0.37**	1	03/16/07	03/16/07	J
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/16/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/16/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/16/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/16/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/16/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/16/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/16/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/16/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	**0.54**	1	03/16/07	03/16/07	J
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/16/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/16/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/16/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/16/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/16/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/16/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/16/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/16/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/16/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/16/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/16/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/16/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/16/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/25/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-05 (MWB013_WG031407_0001 - Water) - cont.									
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/16/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/16/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/16/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/16/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/16/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/16/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/16/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	**5.3**	1	03/16/07	03/16/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/16/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/16/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/16/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/16/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/16/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/16/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*108 %*				
Surrogate: Dibromofluoromethane (80-120%)					*109 %*				
Surrogate: Toluene-d8 (80-120%)					*103 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/5/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-06 (MWG004_WG031407_0001 - Water)									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/16/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/16/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/16/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/16/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/16/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/16/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/16/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/16/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/16/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	ND	1	03/16/07	03/16/07	
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/16/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/16/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/16/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/16/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/16/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/16/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	**0.34**	1	03/16/07	03/16/07	J
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/16/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/16/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/16/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/16/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/16/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/16/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/16/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/5/1007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-06 (MWG004_WG031407_0001 - Water) - cont.									
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/16/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/16/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/16/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/16/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/16/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/16/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/16/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	**17**	1	03/16/07	03/16/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/16/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/16/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/16/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/16/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/16/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/16/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*107 %*				
Surrogate: Dibromofluoromethane (80-120%)					*114 %*				
Surrogate: Toluene-d8 (80-120%)					*104 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/15/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-07 (TMW_14_WG031407_0001 - Water)									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/17/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/17/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/17/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	**1.4**	1	03/16/07	03/17/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	**2.7**	1	03/16/07	03/17/07	
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/17/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/17/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/17/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/17/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/17/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/17/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/27/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-07 (TMW_14_WG031407_0001 - Water) - cont.									
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/17/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/17/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/17/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/17/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	**0.89**	1	03/16/07	03/17/07	J
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/17/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	6.7	1	03/16/07	03/17/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/17/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/17/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/17/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/17/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/17/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*108 %*				
Surrogate: Dibromofluoromethane (80-120%)					*118 %*				
Surrogate: Toluene-d8 (80-120%)					*104 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/5/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-08 (TMW_11_WG031407_0001 - Water)									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/17/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	**0.28**	1	03/16/07	03/17/07	J
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/17/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/17/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	**2.3**	1	03/16/07	03/17/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	**170**	1	03/16/07	03/17/07	
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/17/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/17/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/17/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/17/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/17/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/17/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/15/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-08 (TMW_11_WG031407_0001 - Water) - cont.									
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/17/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/17/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/17/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/17/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	**3.7**	1	03/16/07	03/17/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/17/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	**8.0**	1	03/16/07	03/17/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/17/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/17/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/17/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/17/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/17/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*109 %*				
Surrogate: Dibromofluoromethane (80-120%)					*111 %*				
Surrogate: Toluene-d8 (80-120%)					*102 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/21/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-09 (WCC_5S_WG031407_0001 - Water)									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/17/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/17/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/17/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	**0.40**	1	03/16/07	03/17/07	J
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/17/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	**0.68**	1	03/16/07	03/17/07	J
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	**6.5**	1	03/16/07	03/17/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	**0.54**	1	03/16/07	03/17/07	J
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/17/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/17/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/17/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/17/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/17/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/5/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-09 (WCC_5S_WG031407_0001 - Water) - cont.									
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/17/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/17/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/17/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/17/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/17/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	**2.9**	1	03/16/07	03/17/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	**1.2**	1	03/16/07	03/17/07	J
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/17/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/17/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/17/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/17/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/17/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*109 %*				
Surrogate: Dibromofluoromethane (80-120%)					*116 %*				
Surrogate: Toluene-d8 (80-120%)					*103 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/15/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-10 (MWC021_WG031407_0001 - Water)									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/17/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/17/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/17/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	**0.50**	1	03/16/07	03/17/07	J
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/17/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	**0.52**	1	03/16/07	03/17/07	J
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	**0.46**	1	03/16/07	03/17/07	J
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	**4.1**	1	03/16/07	03/17/07	
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/17/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/17/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/17/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/17/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/17/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

RMS 1007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: 1QC1612

Sampled: 03/14/07
Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: 1QC1612-10 (MWC021_WG031407_0001 - Water) - cont.									
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/17/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/17/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/17/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/17/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/17/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	**11**	1	03/16/07	03/17/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/17/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/17/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/17/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/17/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/17/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*109 %*				
Surrogate: Dibromofluoromethane (80-120%)					*115 %*				
Surrogate: Toluene-d8 (80-120%)					*104 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/21/07

LDC #: 16739A1
SDG #: IQC1612
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
Tier 1

Date: 5/10/07
Page: 1 of 1
Reviewer: m
2nd Reviewer: m

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/14/07
II.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration	N	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
water

5	1 MWB013_WG031407_0001	11	IC16022-BLK1	21		31		
6	2 MWG004_WG031407_0001	12		22		32		
7	3 TMW_14_WG031407_0001	13		23		33		
8	4 TMW_11_WG031407_0001	14		24		34		
9	5 WCC_5S_WG031407_0001	15		25		35		
10	6 MWC021_WG031407_0001	16		26		36		
	7 MWB013_WG031407_0001MS	17		27		37		
	8 MWB013_WG031407_0001MSD	18		28		38		
	9	19		29		39		
	10	20		30		40		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 22, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Volatiles

Validation Level: Tier 2

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC2470

Sample Identification

MWB028_WG032207_0001
MWB027_WG032207_0001
MWB027_WG032207_0002
CMW002_WG032207_0001
MWB028_WG032207_0001MS
MWB028_WG032207_0001MSD

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990 .

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
2/27/07	2-Butanone	0.044 (≥0.05)	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002 MWB028_WG032207_0001MS MWB028_WG032207_0001MSD 7C27024-BLK1	J (all detects) UJ (all non-detects)	A
3/21/07	2-Butanone	0.047 (≥0.05)	CMW002_WG032207_0001 7C29027-BLK1	J (all detects) UJ (all non-detects)	A

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/27/07	Acetone	27.1	MWB028_WG032207_0001 MWB027_WG032207_0002 MWB028_WG032207_0001MS MWB028_WG032207_0001MSD 7C27024-BLK1	J (all detects) UJ (all non-detects)	A
3/29/07	Tetrahydrofuran 2-Butanone 4-Methyl-2-pentanone 2-Hexanone	44 80.9 26.5 70.8	CMW002_WG032207_0001 7C29027-BLK1	J (all detects) UJ (all non-detects)	A
3/30/07	Acetone	41.3	CMW002_WG032207_0001 7C30007-BLK1	J (all detects) UJ (all non-detects)	A

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
7C27024-BLK1	3/27/07	Tetrahydrofuran Toluene	8.04 ug/L 0.440 ug/L	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002
7C29027-BLK1	3/29/07	Tetrahydrofuran	5.88 ug/L	CMW002_WG032207_0001
7C30007-BLK1	3/30/07	Methylene chloride	1.64 ug/L	CMW002_WG032207_0001

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
MWB028_WG032207_0001	Toluene	0.84 ug/L	1.0U ug/L
MWB027_WG032207_0001	Toluene	1.2 ug/L	1.2U ug/L
MWB027_WG032207_0002	Toluene	0.91 ug/L	1.0U ug/L

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
7C27024-BS1	Acetone	156 (30-140)	MWB028_WG032207_0001 MWB027_WG032207_0002 7C27024-BLK1	J (all detects)	P
7C27024-BS1	2-Butanone	150 (40-140)	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002 7C27024-BLK1	J (all detects)	P
7C29027-BS1	2-Butanone 1,2-Dibromo-3-chloropropane 2-Hexanone 4-Methyl-2-pentanone	268 (40-140) 142 (50-135) 248 (45-140) 170 (45-140)	CMW002_WG032207_0001 7C29027-BLK1	J (all detects) J (all detects) J (all detects) J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples MWB027_WG032207_0001 and MWB027_WG032207_0002 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD
	MWB027_WG032207_0001	MWB027_WG032207_0002	
Chloroform	4.8	4.1	16
1,1-Dichloroethene	170	160	6
cis-1,2-Dichloroethene	120	110	9
trans-1,2-Dichloroethene	1.1	0.72	42
Tetrachloroethene	2.2	1.8	20
Toluene	1.2	0.91	27

Compound	Concentration (ug/L)		RPD
	MWB027_WG032207_0001	MWB027_WG032207_0002	
Trichlorofluoromethane	22	19	15
Trichloroethene	400	370	8
1,1-Dichloroethane	1.0U	0.3	200

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Volatiles - Data Qualification Summary - SDG IQC2470

SDG	Sample	Compound	Flag	A or P	Reason
IQC2470	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002 CMW002_WG032207_0001	2-Butanone	J (all detects) UJ (all non-detects)	A	Initial calibration (RRF)
IQC2470	MWB028_WG032207_0001 MWB027_WG032207_0002 CMW002_WG032207_0001	Acetone	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
IQC2470	CMW002_WG032207_0001	Tetrahydrofuran 2-Butanone 4-Methyl-2-pentanone 2-Hexanone	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
IQC2470	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002	2-Butanone	J (all detects)	P	Laboratory control samples (%R)
IQC2470	MWB028_WG032207_0001 MWB027_WG032207_0002	Acetone	J (all detects)	P	Laboratory control samples (%R)
IQC2470	CMW002_WG032207_0001	2-Butanone 1,2-Dibromo-3-chloropropane 2-Hexanone 4-Methyl-2-pentanone	J (all detects) J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R)

Boeing Realty Corp., Bldg C-6 Torrance
Volatiles - Laboratory Blank Data Qualification Summary - SDG IQC2470

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P
IQC2470	MWB028_WG032207_0001	Toluene	1.0U ug/L	A
IQC2470	MWB027_WG032207_0001	Toluene	1.2U ug/L	A
IQC2470	MWB027_WG032207_0002	Toluene	1.0U ug/L	A

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-05 (MWB028_WG032207_0001 - Water)									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C27024	4.5	10	ND UJ	1	03/27/07	03/27/07	L
Benzene	EPA 8260B	7C27024	0.28	1.0	**0.73**	1	03/27/07	03/27/07	J
Bromobenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/27/07	
Bromochloromethane	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/27/07	
Bromodichloromethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/27/07	
Bromoform	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/27/07	
Bromomethane	EPA 8260B	7C27024	0.42	1.0	ND	1	03/27/07	03/27/07	
2-Butanone (MEK)	EPA 8260B	7C27024	3.8	5.0	ND UJ	1	03/27/07	03/27/07	L
n-Butylbenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/27/07	
sec-Butylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/27/07	
tert-Butylbenzene	EPA 8260B	7C27024	0.22	1.0	ND	1	03/27/07	03/27/07	
Carbon Disulfide	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/27/07	
Carbon tetrachloride	EPA 8260B	7C27024	0.28	0.50	ND	1	03/27/07	03/27/07	
Chlorobenzene	EPA 8260B	7C27024	0.36	1.0	ND	1	03/27/07	03/27/07	
Chloroethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/27/07	
Chloroform	EPA 8260B	7C27024	0.33	1.0	**3.0**	1	03/27/07	03/27/07	
Chloromethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/27/07	
2-Chlorotoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/27/07	
4-Chlorotoluene	EPA 8260B	7C27024	0.29	1.0	ND	1	03/27/07	03/27/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C27024	0.97	2.0	ND	1	03/27/07	03/27/07	
Dibromochloromethane	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/27/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/27/07	
1,4-Dichlorobenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/27/07	
1,2-Dichlorobenzene	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/27/07	
1,3-Dichlorobenzene	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/27/07	
Dichlorodifluoromethane	EPA 8260B	7C27024	0.79	1.0	ND	1	03/27/07	03/27/07	
1,2-Dichloroethane	EPA 8260B	7C27024	0.28	0.50	**0.53**	1	03/27/07	03/27/07	
1,1-Dichloroethane	EPA 8260B	7C27024	0.27	1.0	**8.8**	1	03/27/07	03/27/07	
1,1-Dichloroethene	EPA 8260B	7C27024	0.42	1.0	**280**	1	03/27/07	03/27/07	
cis-1,2-Dichloroethene	EPA 8260B	7C27024	0.32	1.0	**17**	1	03/27/07	03/27/07	
trans-1,2-Dichloroethene	EPA 8260B	7C27024	0.27	1.0	**6.0**	1	03/27/07	03/27/07	
1,2-Dichloropropane	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/27/07	
2,2-Dichloropropane	EPA 8260B	7C27024	0.34	1.0	ND	1	03/27/07	03/27/07	
cis-1,3-Dichloropropene	EPA 8260B	7C27024	0.22	0.50	ND	1	03/27/07	03/27/07	
1,1-Dichloropropene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/27/07	
trans-1,3-Dichloropropene	EPA 8260B	7C27024	0.32	0.50	ND	1	03/27/07	03/27/07	
Ethylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/27/07	
Hexachlorobutadiene	EPA 8260B	7C27024	0.38	1.0	ND	1	03/27/07	03/27/07	
2-Hexanone	EPA 8260B	7C27024	2.6	6.0	ND	1	03/27/07	03/27/07	
Iodomethane	EPA 8260B	7C27024	1.0	2.0	ND	1	03/27/07	03/27/07	
Isopropylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/27/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/25/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-05 (MWB028_WG032207_0001 - Water) - cont.									
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/27/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/27/07	
Methylene chloride	EPA 8260B	7C27024	0.95	1.0	ND	1	03/27/07	03/27/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C27024	3.5	5.0	ND	1	03/27/07	03/27/07	
n-Propylbenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/27/07	
Styrene	EPA 8260B	7C27024	0.16	1.0	ND	1	03/27/07	03/27/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/27/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C27024	0.24	1.0	ND	1	03/27/07	03/27/07	
Tetrachloroethene	EPA 8260B	7C27024	0.32	1.0	**1.9**	1	03/27/07	03/27/07	
Tetrahydrofuran (THF)	EPA 8260B	7C27024	3.5	10	ND	1	03/27/07	03/27/07	
Toluene	EPA 8260B	7C27024	0.36	1.0	**0.84** 1.0U	1	03/27/07	03/27/07	B, J
1,2,3-Trichlorobenzene	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/27/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/27/07	
1,1,2-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/27/07	
1,1,1-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/27/07	
Trichlorofluoromethane	EPA 8260B	7C27024	0.34	2.0	ND	1	03/27/07	03/27/07	
1,2,3-Trichloropropane	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/27/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C27024	0.23	1.0	ND	1	03/27/07	03/27/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C27024	0.26	1.0	ND	1	03/27/07	03/27/07	
Vinyl acetate	EPA 8260B	7C27024	1.7	6.0	ND	1	03/27/07	03/27/07	
Vinyl chloride	EPA 8260B	7C27024	0.30	0.50	ND	1	03/27/07	03/27/07	
Xylenes, Total	EPA 8260B	7C27024	0.90	1.0	ND	1	03/27/07	03/27/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*102 %*				
Surrogate: Dibromofluoromethane (80-120%)					*107 %*				
Surrogate: Toluene-d8 (80-120%)					*102 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/27/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-05RE1 (MWB028_WG032207_0001 - Water) - cont.									
Reporting Units: ug/l									
Trichloroethene	EPA 8260B	7C28004	2.6	10	**780**	10	03/28/07	03/28/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*106 %*				
Surrogate: Dibromofluoromethane (80-120%)					*107 %*				
Surrogate: Toluene-d8 (80-120%)					*110 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

5/10/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-06 (MWB027_WG032207_0001 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
Bromobenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
Bromochloromethane	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
Bromodichloromethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
Bromoform	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
Bromomethane	EPA 8260B	7C27024	0.42	1.0	ND	1	03/27/07	03/28/07	
2-Butanone (MEK)	EPA 8260B	7C27024	3.8	5.0	ND UJ	1	03/27/07	03/28/07	L
n-Butylbenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/28/07	
sec-Butylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
tert-Butylbenzene	EPA 8260B	7C27024	0.22	1.0	ND	1	03/27/07	03/28/07	
Carbon Disulfide	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/28/07	
Carbon tetrachloride	EPA 8260B	7C27024	0.28	0.50	ND	1	03/27/07	03/28/07	
Chlorobenzene	EPA 8260B	7C27024	0.36	1.0	ND	1	03/27/07	03/28/07	
Chloroethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/28/07	
Chloroform	EPA 8260B	7C27024	0.33	1.0	**4.8**	1	03/27/07	03/28/07	
Chloromethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/28/07	
2-Chlorotoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
4-Chlorotoluene	EPA 8260B	7C27024	0.29	1.0	ND	1	03/27/07	03/28/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C27024	0.97	2.0	ND	1	03/27/07	03/28/07	
Dibromochloromethane	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
1,4-Dichlorobenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/28/07	
1,2-Dichlorobenzene	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
1,3-Dichlorobenzene	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/28/07	
Dichlorodifluoromethane	EPA 8260B	7C27024	0.79	1.0	ND	1	03/27/07	03/28/07	
1,2-Dichloroethane	EPA 8260B	7C27024	0.28	0.50	ND	1	03/27/07	03/28/07	
1,1-Dichloroethane	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
1,1-Dichloroethene	EPA 8260B	7C27024	0.42	1.0	**170**	1	03/27/07	03/28/07	
cis-1,2-Dichloroethene	EPA 8260B	7C27024	0.32	1.0	**120**	1	03/27/07	03/28/07	
trans-1,2-Dichloroethene	EPA 8260B	7C27024	0.27	1.0	**1.1**	1	03/27/07	03/28/07	
1,2-Dichloropropane	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/28/07	
2,2-Dichloropropane	EPA 8260B	7C27024	0.34	1.0	ND	1	03/27/07	03/28/07	
cis-1,3-Dichloropropene	EPA 8260B	7C27024	0.22	0.50	ND	1	03/27/07	03/28/07	
1,1-Dichloropropene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
trans-1,3-Dichloropropene	EPA 8260B	7C27024	0.32	0.50	ND	1	03/27/07	03/28/07	
Ethylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
Hexachlorobutadiene	EPA 8260B	7C27024	0.38	1.0	ND	1	03/27/07	03/28/07	
2-Hexanone	EPA 8260B	7C27024	2.6	6.0	ND	1	03/27/07	03/28/07	
Iodomethane	EPA 8260B	7C27024	1.0	2.0	ND	1	03/27/07	03/28/07	
Isopropylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
p-Isopropyltoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

5/10/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-06 (MWB027_WG032207_0001 - Water) - cont.									
Reporting Units: ug/l									
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
Methylene chloride	EPA 8260B	7C27024	0.95	1.0	ND	1	03/27/07	03/28/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C27024	3.5	5.0	ND	1	03/27/07	03/28/07	
n-Propylbenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
Styrene	EPA 8260B	7C27024	0.16	1.0	ND	1	03/27/07	03/28/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C27024	0.24	1.0	ND	1	03/27/07	03/28/07	
Tetrachloroethene	EPA 8260B	7C27024	0.32	1.0	**2.2**	1	03/27/07	03/28/07	
Tetrahydrofuran (THF)	EPA 8260B	7C27024	3.5	10	ND	1	03/27/07	03/28/07	
Toluene	EPA 8260B	7C27024	0.36	1.0	**1.2** U	1	03/27/07	03/28/07	B
1,2,3-Trichlorobenzene	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/28/07	
1,1,2-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
1,1,1-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
Trichlorofluoromethane	EPA 8260B	7C27024	0.34	2.0	**22**	1	03/27/07	03/28/07	
1,2,3-Trichloropropane	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C27024	0.23	1.0	ND	1	03/27/07	03/28/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C27024	0.26	1.0	ND	1	03/27/07	03/28/07	
Vinyl acetate	EPA 8260B	7C27024	1.7	6.0	ND	1	03/27/07	03/28/07	
Vinyl chloride	EPA 8260B	7C27024	0.30	0.50	ND	1	03/27/07	03/28/07	
Xylenes, Total	EPA 8260B	7C27024	0.90	1.0	ND	1	03/27/07	03/28/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*101 %*				
Surrogate: Dibromofluoromethane (80-120%)					*120 %*				
Surrogate: Toluene-d8 (80-120%)					*103 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/5/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-06RE1 (MWB027_WG032207_0001 - Water) - cont.									
Reporting Units: ug/l									
Trichloroethene	EPA 8260B	7C28012	2.6	10	**400**	10	03/28/07	03/28/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*106 %*				
Surrogate: Dibromofluoromethane (80-120%)					*119 %*				
Surrogate: Toluene-d8 (80-120%)					*106 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/25/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-06RE2 (MWB027_WG032207_0001 - Water) - cont.									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C29029	4.5	10	ND	1	03/29/07	03/30/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*98 %*				
Surrogate: Dibromofluoromethane (80-120%)					*96 %*				
Surrogate: Toluene-d8 (80-120%)					*99 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/5/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-07 (MWB027_WG032207_0002 - Water)									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C27024	4.5	10	ND UJ	1	03/27/07	03/28/07	L
Benzene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
Bromobenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
Bromochloromethane	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
Bromodichloromethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
Bromoform	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
Bromomethane	EPA 8260B	7C27024	0.42	1.0	ND	1	03/27/07	03/28/07	
2-Butanone (MEK)	EPA 8260B	7C27024	3.8	5.0	ND UJ	1	03/27/07	03/28/07	L
n-Butylbenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/28/07	
sec-Butylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
tert-Butylbenzene	EPA 8260B	7C27024	0.22	1.0	ND	1	03/27/07	03/28/07	
Carbon Disulfide	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/28/07	
Carbon tetrachloride	EPA 8260B	7C27024	0.28	0.50	ND	1	03/27/07	03/28/07	
Chlorobenzene	EPA 8260B	7C27024	0.36	1.0	ND	1	03/27/07	03/28/07	
Chloroethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/28/07	
Chloroform	EPA 8260B	7C27024	0.33	1.0	**4.1**	1	03/27/07	03/28/07	
Chloromethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/28/07	
2-Chlorotoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
4-Chlorotoluene	EPA 8260B	7C27024	0.29	1.0	ND	1	03/27/07	03/28/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C27024	0.97	2.0	ND	1	03/27/07	03/28/07	
Dibromochloromethane	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
1,4-Dichlorobenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/28/07	
1,2-Dichlorobenzene	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
1,3-Dichlorobenzene	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/28/07	
Dichlorodifluoromethane	EPA 8260B	7C27024	0.79	1.0	ND	1	03/27/07	03/28/07	
1,2-Dichloroethane	EPA 8260B	7C27024	0.28	0.50	ND	1	03/27/07	03/28/07	
1,1-Dichloroethane	EPA 8260B	7C27024	0.27	1.0	**0.30**	1	03/27/07	03/28/07	J
1,1-Dichloroethene	EPA 8260B	7C27024	0.42	1.0	**160**	1	03/27/07	03/28/07	
cis-1,2-Dichloroethene	EPA 8260B	7C27024	0.32	1.0	**110**	1	03/27/07	03/28/07	
trans-1,2-Dichloroethene	EPA 8260B	7C27024	0.27	1.0	**0.72**	1	03/27/07	03/28/07	J
1,2-Dichloropropane	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/28/07	
2,2-Dichloropropane	EPA 8260B	7C27024	0.34	1.0	ND	1	03/27/07	03/28/07	
cis-1,3-Dichloropropene	EPA 8260B	7C27024	0.22	0.50	ND	1	03/27/07	03/28/07	
1,1-Dichloropropene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
trans-1,3-Dichloropropene	EPA 8260B	7C27024	0.32	0.50	ND	1	03/27/07	03/28/07	
Ethylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
Hexachlorobutadiene	EPA 8260B	7C27024	0.38	1.0	ND	1	03/27/07	03/28/07	
2-Hexanone	EPA 8260B	7C27024	2.6	6.0	ND	1	03/27/07	03/28/07	
Iodomethane	EPA 8260B	7C27024	1.0	2.0	ND	1	03/27/07	03/28/07	
Isopropylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/25/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-07 (MWB027_WG032207_0002 - Water) - cont.									
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
Methylene chloride	EPA 8260B	7C27024	0.95	1.0	ND	1	03/27/07	03/28/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C27024	3.5	5.0	ND	1	03/27/07	03/28/07	
n-Propylbenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
Styrene	EPA 8260B	7C27024	0.16	1.0	ND	1	03/27/07	03/28/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C27024	0.24	1.0	ND	1	03/27/07	03/28/07	
Tetrachloroethene	EPA 8260B	7C27024	0.32	1.0	**1.8**	1	03/27/07	03/28/07	
Tetrahydrofuran (THF)	EPA 8260B	7C27024	3.5	10	ND	1	03/27/07	03/28/07	
Toluene	EPA 8260B	7C27024	0.36	1.0	**0.91** 1.04	1	03/27/07	03/28/07	B, J
1,2,3-Trichlorobenzene	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/28/07	
1,1,2-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
1,1,1-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
Trichlorofluoromethane	EPA 8260B	7C27024	0.34	2.0	**19**	1	03/27/07	03/28/07	
1,2,3-Trichloropropane	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C27024	0.23	1.0	ND	1	03/27/07	03/28/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C27024	0.26	1.0	ND	1	03/27/07	03/28/07	
Vinyl acetate	EPA 8260B	7C27024	1.7	6.0	ND	1	03/27/07	03/28/07	
Vinyl chloride	EPA 8260B	7C27024	0.30	0.50	ND	1	03/27/07	03/28/07	
Xylenes, Total	EPA 8260B	7C27024	0.90	1.0	ND	1	03/27/07	03/28/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*102 %*				
Surrogate: Dibromofluoromethane (80-120%)					*119 %*				
Surrogate: Toluene-d8 (80-120%)					*102 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/25/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-07RE1 (MWB027_WG032207_0002 - Water) - cont.									
Reporting Units: ug/l									
Trichloroethene	EPA 8260B	7C28004	2.6	10	**370**	10	03/28/07	03/28/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*103 %*				
Surrogate: Dibromofluoromethane (80-120%)					*112 %*				
Surrogate: Toluene-d8 (80-120%)					*110 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

Mar 2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-13 (CMW002_WG032207_0001 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	7C29027	0.28	1.0	**60**	1	03/29/07	03/29/07	
Bromobenzene	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
Bromochloromethane	EPA 8260B	7C29027	0.32	1.0	ND	1	03/29/07	03/29/07	
Bromodichloromethane	EPA 8260B	7C29027	0.30	1.0	ND	1	03/29/07	03/29/07	
Bromoform	EPA 8260B	7C29027	0.40	1.0	ND	1	03/29/07	03/29/07	
Bromomethane	EPA 8260B	7C29027	0.42	1.0	ND	1	03/29/07	03/29/07	
2-Butanone (MEK)	EPA 8260B	7C29027	3.8	5.0	ND UJ	1	03/29/07	03/29/07	C, L
n-Butylbenzene	EPA 8260B	7C29027	0.37	1.0	ND	1	03/29/07	03/29/07	
sec-Butylbenzene	EPA 8260B	7C29027	0.25	1.0	ND	1	03/29/07	03/29/07	
tert-Butylbenzene	EPA 8260B	7C29027	0.22	1.0	ND	1	03/29/07	03/29/07	
Carbon Disulfide	EPA 8260B	7C29027	0.48	1.0	ND	1	03/29/07	03/29/07	
Carbon tetrachloride	EPA 8260B	7C29027	0.28	0.50	ND	1	03/29/07	03/29/07	
Chloroethane	EPA 8260B	7C29027	0.40	2.0	ND	1	03/29/07	03/29/07	
Chloroform	EPA 8260B	7C29027	0.33	1.0	**1.1**	1	03/29/07	03/29/07	
Chloromethane	EPA 8260B	7C29027	0.40	2.0	ND	1	03/29/07	03/29/07	
2-Chlorotoluene	EPA 8260B	7C29027	0.28	1.0	ND	1	03/29/07	03/29/07	
4-Chlorotoluene	EPA 8260B	7C29027	0.29	1.0	ND	1	03/29/07	03/29/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C29027	0.97	2.0	ND	1	03/29/07	03/29/07	L
Dibromochloromethane	EPA 8260B	7C29027	0.28	1.0	ND	1	03/29/07	03/29/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C29027	0.40	1.0	ND	1	03/29/07	03/29/07	
1,4-Dichlorobenzene	EPA 8260B	7C29027	0.37	1.0	**9.2**	1	03/29/07	03/29/07	
1,2-Dichlorobenzene	EPA 8260B	7C29027	0.32	1.0	**1.4**	1	03/29/07	03/29/07	
1,3-Dichlorobenzene	EPA 8260B	7C29027	0.35	1.0	ND	1	03/29/07	03/29/07	
Dichlorodifluoromethane	EPA 8260B	7C29027	0.79	1.0	ND	1	03/29/07	03/29/07	
1,2-Dichloroethane	EPA 8260B	7C29027	0.28	0.50	ND	1	03/29/07	03/29/07	
1,1-Dichloroethane	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
1,1-Dichloroethene	EPA 8260B	7C29027	0.42	1.0	**1.2**	1	03/29/07	03/29/07	
cis-1,2-Dichloroethene	EPA 8260B	7C29027	0.32	1.0	**3.3**	1	03/29/07	03/29/07	
trans-1,2-Dichloroethene	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
1,2-Dichloropropane	EPA 8260B	7C29027	0.35	1.0	ND	1	03/29/07	03/29/07	
2,2-Dichloropropane	EPA 8260B	7C29027	0.34	1.0	ND	1	03/29/07	03/29/07	
cis-1,3-Dichloropropene	EPA 8260B	7C29027	0.22	0.50	ND	1	03/29/07	03/29/07	
1,1-Dichloropropene	EPA 8260B	7C29027	0.28	1.0	ND	1	03/29/07	03/29/07	
trans-1,3-Dichloropropene	EPA 8260B	7C29027	0.32	0.50	ND	1	03/29/07	03/29/07	
Ethylbenzene	EPA 8260B	7C29027	0.25	1.0	**1.1**	1	03/29/07	03/29/07	
Hexachlorobutadiene	EPA 8260B	7C29027	0.38	1.0	ND	1	03/29/07	03/29/07	
2-Hexanone	EPA 8260B	7C29027	2.6	6.0	ND UJ	1	03/29/07	03/29/07	C, L
Iodomethane	EPA 8260B	7C29027	1.0	2.0	ND	1	03/29/07	03/29/07	
Isopropylbenzene	EPA 8260B	7C29027	0.25	1.0	ND	1	03/29/07	03/29/07	
p-Isopropyltoluene	EPA 8260B	7C29027	0.28	1.0	ND	1	03/29/07	03/29/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C29027	0.32	1.0	ND	1	03/29/07	03/29/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/25/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-13 (CMW002_WG032207_0001 - Water) - cont.									
Reporting Units: ug/l									
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C29027	3.5	5.0	ND UJ	1	03/29/07	03/29/07	L
n-Propylbenzene	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
Styrene	EPA 8260B	7C29027	0.16	1.0	ND	1	03/29/07	03/29/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C29027	0.24	1.0	ND	1	03/29/07	03/29/07	
Tetrachloroethene	EPA 8260B	7C29027	0.32	1.0	**1.8**	1	03/29/07	03/29/07	
Tetrahydrofuran (THF)	EPA 8260B	7C29027	3.5	10	ND UJ	1	03/29/07	03/29/07	C, L
Toluene	EPA 8260B	7C29027	0.36	1.0	ND	1	03/29/07	03/29/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C29027	0.30	1.0	ND	1	03/29/07	03/29/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C29027	0.48	1.0	ND	1	03/29/07	03/29/07	
1,1,2-Trichloroethane	EPA 8260B	7C29027	0.30	1.0	ND	1	03/29/07	03/29/07	
1,1,1-Trichloroethane	EPA 8260B	7C29027	0.30	1.0	ND	1	03/29/07	03/29/07	
Trichlorofluoromethane	EPA 8260B	7C29027	0.34	2.0	ND	1	03/29/07	03/29/07	
1,2,3-Trichloropropane	EPA 8260B	7C29027	0.40	1.0	ND	1	03/29/07	03/29/07	
I,2,4-Trimethylbenzene	EPA 8260B	7C29027	0.23	1.0	ND	1	03/29/07	03/29/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C29027	0.26	1.0	ND	1	03/29/07	03/29/07	
Vinyl acetate	EPA 8260B	7C29027	1.7	6.0	ND	1	03/29/07	03/29/07	
Vinyl chloride	EPA 8260B	7C29027	0.30	0.50	ND	1	03/29/07	03/29/07	
Xylenes, Total	EPA 8260B	7C29027	0.90	1.0	**2.4**	1	03/29/07	03/29/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*92 %*				
Surrogate: Dibromofluoromethane (80-120%)					*98 %*				
Surrogate: Toluene-d8 (80-120%)					*97 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/27/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-13RE1 (CMW002_WG032207_0001 - Water) - cont.									
Reporting Units: ug/l									
Chlorobenzene	EPA 8260B	7C30007	18	50	**7400**	50	03/30/07	03/30/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*89 %*				
Surrogate: Dibromofluoromethane (80-120%)					*99 %*				
Surrogate: Toluene-d8 (80-120%)					*98 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/5/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine. CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-13RE2 (CMW002_WG032207_0001 - Water) - cont.									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C30007	22	50	ND UJ	5	03/30/07	03/30/07	
Methylene chloride	EPA 8260B	7C30007	4.8	5.0	ND	5	03/30/07	03/30/07	
Trichloroethene	EPA 8260B	7C30007	1.3	5.0	**340**	5	03/30/07	03/30/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*96 %*				
Surrogate: Dibromofluoromethane (80-120%)					*99 %*				
Surrogate: Toluene-d8 (80-120%)					*98 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

MDS 10-07

LDC #: 16739B1
SDG #: IQC2470
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
Tier 2

Date: 5/10/07
Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/22/07
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	% RSD, r^2 ≥0.990
IV.	Continuing calibration	SW	
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	CMW001-WG032207-0001 MS/D
VIII.	Laboratory control samples	SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D = 2 + 3
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

5	1	MWB028_WG032207_0001 (2=5)	11	1	7C27024-BLK1	21	31	
6	2	MWB027_WG032207_0001 (3=5, 4=F) D	12	2	7C28004-BLK1	22	32	
7	3	MWB027_WG032207_0002 (2=5) D	13	3	7C28012-BLK1	23	33	
13	4 5	CMW002_WG032207_0001 (6=DD, F, F, S)	14	4	7C29029-BLK1	24	34	
	5 1	MWB028_WG032207_0001MS	15	5	7C29027-BLK1	25	35	
	6 1	MWB028_WG032207_0001MSD	16	6	7C30007-BLK1	26	36	
	7		17			27	37	
	8		18			28	38	
	9		19			29	39	
	10		20			30	40	

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 47391B1
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Did the laboratory perform a 5 point calibration prior to sample analysis?
Y N N/A Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?
Y N N/A Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?_____
Y N N/A Did the initial calibration meet the acceptance criteria?
Y N N/A Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %RSD (Limit: <30.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	2/27/07	ICAL-3 1	M		0.044	7C27024-BLK1, 1→3, 5, 6	J/NJ/A
	3/21/07	ICAL-33	M		0.047	7C29027-BLK1, ~~5~~ 4	J/NJ/A

INICAL.1SB

LDC #: 16739B1
SDG #: fc cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 6 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?

Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	3/27/07	ccv	F	27.1		7C27024-BLK1,	J/UJ/A
	8:50PM					1, 3, 5, 6	
	3/29/07	ccv	Tetrahydrofuran	44		7C29027-BLK1,	J/UJ/A
+	4:40PM		~~F~~	~~119.8~~		4	
+			M	80.9			
			Y	26.5		↓	↓
	3/29/07		Z	70.8			
	3/30/07	ccv	F	41.3		7C30007-BLK1,	J/UJ/A
	9:08AM					~~5~~ 4	

LDC #: 16739B1
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: B
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?

Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?

Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 3/27/07
Conc. units: ug/L
Associated Samples: 1-3

Compound	Blank ID	Sample Identification								
	7C27024-BLK1		1	2	3					
~~Methylene chloride~~ Tetrahydrofuran	8.04		-	-						
~~Acetone~~ cc	0.440		0.84/1.0 U	1.2/U	0.91/1.0 U					
CRQL										

Blank analysis date: 3/29/07
Conc. units: ug/L
Associated Samples: 4 (ND)

Compound	Blank ID	Sample Identification								
	7C29027-BLK1									
~~Methylene chloride~~ Tetrahydrofuran	5.88									
Acetone										
CRQL										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 16739B1
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?
Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 3/30/07
Conc. units: ug/L
Associated Samples: 4 (ND)

Compound	Blank ID	Sample Identification								
	7C30007-BLK1									
Methylene chloride	1.64									
Acetone										
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
CRQL										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 16739B1
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		CMW001-WG032207	F	163 (20-150)	156 (20-150)	( )	none	NO QUAL
		-0001MSD	M	165 (30-145)	163 (30-145)	( )	↓	↓
			Z	158 (25-140)	159 (25-140)	( )		
			Y	164 (40-140)	158 (40-140)	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 16739B1
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		7C27024-BS1	F	156 (30-140)	( )	( )	7C27024-BLK1,	J/Pdet
			M	150 (40-140)	( )	( )	1, 3	↓
				( )	( )	( )	1	
			M	150 (40-140	( )	( )	2	↓
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
		7C29027-BS1	M	268 (40-140)	( )	( )	7C29027-BLK1,	J/Pdet
			MM	142 (50-135)	( )	( )	4	
			Z	248 (45-140)	( )	( )	↓	↓
			Y	170 (45-140	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
		note #4 Tetrahydrofuran (was qualified L in Form 1, but THF was not spiked in LCS/D						

LDC #: 16739B1
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [illegible]
2nd reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (ug/L) 2	3	RPD
K	4.8	4.1	16
H	170	160	6
QQQ	120	110	9
PPP	1.1	0.72	42
AA	2.2	1.8	20

Compound	Concentration ( )		RPD
CC	1.2	0.91	27
KK	22	19	15
S	400	370	8
I	1.0U	0.3	200

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 27, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Volatiles

Validation Level: Tier 3

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC2895

Sample Identification

MWB019_WG032707_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990 .

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
2/28/07	2-Butanone	0.037 (≥0.05)	All samples in SDG IQC2895	J (all detects) UJ (all non-detects)	A

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
4/3/07	Acetone 2-Butanone 2,2-Dichloropropane 2-Hexanone	109.3 70.3 29.1 63.9	All samples in SDG IQC2895	J (all detects) UJ (all non-detects)	A

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
7D03010-BLK1	4/3/07	Tetrahydrofuran Trichloroethene	8.04 ug/L 0.480 ug/L	All samples in SDG IQC2895

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
MWB019_WG032707_0001 (10X)	Tetrahydrofuran	64 ug/L	100U ug/L

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
7D03010-BS1	Acetone	263 (30-140)	All samples in SDG IQC2895	J (all detects)	P
	2-Butanone	237 (40-140)		J (all detects)	
	1,2-Dibromo-3-chloropropane	138 (50-135)		J (all detects)	
	2-Hexanone	211 (45-140)		J (all detects)	
	4-Methyl-2-pentanone	144 (45-140)		J (all detects)	
	1,1,2,2-Tetrachloroethane	134 (55-130)		J (all detects)	
	1,2,3-Trichloropropane	136 (60-130)		J (all detects)	

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Volatiles - Data Qualification Summary - SDG IQC2895

SDG	Sample	Compound	Flag	A or P	Reason
IQC2895	MWB019_WG032707_0001	2-Butanone	J (all detects) UJ (all non-detects)	A	Initial calibration (RRF)
IQC2895	MWB019_WG032707_0001	Acetone 2-Butanone 2,2-Dichloropropane 2-Hexanone	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
IQC2895	MWB019_WG032707_0001	Acetone 2-Butanone 1,2-Dibromo-3-chloropropane 2-Hexanone 4-Methyl-2-pentanone 1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane	J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects)	P	Laboratory control samples (%R)

Boeing Realty Corp., Bldg C-6 Torrance
Volatiles - Laboratory Blank Data Qualification Summary - SDG IQC2895

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P
IQC2895	MWB019_WG032707_0001 (10X)	Tetrahydrofuran	100U ug/L	A

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2895

Sampled: 03/27/07
Received: 03/27/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2895-07 (MWB019_WG032707_0001 - Water)									
Reporting Units: ug/l									
Chloroform	EPA 8260B	7D02027	16	50	**3600**	50	04/02/07	04/03/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*102 %*				
Surrogate: Dibromofluoromethane (80-120%)					*116 %*				
Surrogate: Toluene-d8 (80-120%)					*110 %*				
Sample ID: IQC2895-07RE1 (MWB019_WG032707_0001 - Water)									
Reporting Units: ug/l									
Acetone	EPA 8260B	7D03010	45	100	ND UJ	10	04/03/07	04/03/07	C, L
Benzene	EPA 8260B	7D03010	2.8	10	ND	10	04/03/07	04/03/07	
Bromobenzene	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
Bromochloromethane	EPA 8260B	7D03010	3.2	10	ND	10	04/03/07	04/03/07	
Bromodichloromethane	EPA 8260B	7D03010	3.0	10	ND	10	04/03/07	04/03/07	
Bromoform	EPA 8260B	7D03010	4.0	10	ND	10	04/03/07	04/03/07	
Bromomethane	EPA 8260B	7D03010	4.2	10	ND	10	04/03/07	04/03/07	
2-Butanone (MEK)	EPA 8260B	7D03010	38	50	ND UJ	10	04/03/07	04/03/07	C, L
n-Butylbenzene	EPA 8260B	7D03010	3.7	10	ND	10	04/03/07	04/03/07	
sec-Butylbenzene	EPA 8260B	7D03010	2.5	10	ND	10	04/03/07	04/03/07	
tert-Butylbenzene	EPA 8260B	7D03010	2.2	10	ND	10	04/03/07	04/03/07	
Carbon Disulfide	EPA 8260B	7D03010	4.8	10	ND	10	04/03/07	04/03/07	
Carbon tetrachloride	EPA 8260B	7D03010	2.8	5.0	**10**	10	04/03/07	04/03/07	
Chlorobenzene	EPA 8260B	7D03010	3.6	10	ND	10	04/03/07	04/03/07	
Chloroethane	EPA 8260B	7D03010	4.0	20	ND	10	04/03/07	04/03/07	
Chloromethane	EPA 8260B	7D03010	4.0	20	ND	10	04/03/07	04/03/07	
2-Chlorotoluene	EPA 8260B	7D03010	2.8	10	ND	10	04/03/07	04/03/07	
4-Chlorotoluene	EPA 8260B	7D03010	2.9	10	ND	10	04/03/07	04/03/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7D03010	9.7	20	ND	10	04/03/07	04/03/07	L
Dibromochloromethane	EPA 8260B	7D03010	2.8	10	ND	10	04/03/07	04/03/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7D03010	4.0	10	ND	10	04/03/07	04/03/07	
1,4-Dichlorobenzene	EPA 8260B	7D03010	3.7	10	ND	10	04/03/07	04/03/07	
1,2-Dichlorobenzene	EPA 8260B	7D03010	3.2	10	ND	10	04/03/07	04/03/07	
1,3-Dichlorobenzene	EPA 8260B	7D03010	3.5	10	ND	10	04/03/07	04/03/07	
Dichlorodifluoromethane	EPA 8260B	7D03010	7.9	10	ND	10	04/03/07	04/03/07	
1,2-Dichloroethane	EPA 8260B	7D03010	2.8	5.0	ND	10	04/03/07	04/03/07	
1,1-Dichloroethane	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
1,1-Dichloroethene	EPA 8260B	7D03010	4.2	10	**4.3**	10	04/03/07	04/03/07	J
cis-1,2-Dichloroethene	EPA 8260B	7D03010	3.2	10	ND	10	04/03/07	04/03/07	
trans-1,2-Dichloroethene	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
1,2-Dichloropropane	EPA 8260B	7D03010	3.5	10	ND	10	04/03/07	04/03/07	
2,2-Dichloropropane	EPA 8260B	7D03010	3.4	10	ND UJ	10	04/03/07	04/03/07	
cis-1,3-Dichloropropene	EPA 8260B	7D03010	2.2	5.0	ND	10	04/03/07	04/03/07	
1,1-Dichloropropene	EPA 8260B	7D03010	2.8	10	ND	10	04/03/07	04/03/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

5/1/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2895

Sampled: 03/27/07
Received: 03/27/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2895-07RE1 (MWB019_WG032707_0001 - Water) - cont.									
Reporting Units: ug/l									
trans-1,3-Dichloropropene	EPA 8260B	7D03010	3.2	5.0	ND	10	04/03/07	04/03/07	
Ethylbenzene	EPA 8260B	7D03010	2.5	10	ND	10	04/03/07	04/03/07	
Hexachlorobutadiene	EPA 8260B	7D03010	3.8	10	ND	10	04/03/07	04/03/07	
2-Hexanone	EPA 8260B	7D03010	26	60	ND UJ	10	04/03/07	04/03/07	C, L
Iodomethane	EPA 8260B	7D03010	10	20	ND	10	04/03/07	04/03/07	
Isopropylbenzene	EPA 8260B	7D03010	2.5	10	ND	10	04/03/07	04/03/07	
p-Isopropyltoluene	EPA 8260B	7D03010	2.8	10	ND	10	04/03/07	04/03/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7D03010	3.2	10	ND	10	04/03/07	04/03/07	
Methylene chloride	EPA 8260B	7D03010	9.5	10	ND	10	04/03/07	04/03/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7D03010	35	50	ND	10	04/03/07	04/03/07	L
n-Propylbenzene	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
Styrene	EPA 8260B	7D03010	1.6	10	ND	10	04/03/07	04/03/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7D03010	2.4	10	ND	10	04/03/07	04/03/07	L
Tetrachloroethene	EPA 8260B	7D03010	3.2	10	**150**	10	04/03/07	04/03/07	
Tetrahydrofuran (THF)	EPA 8260B	7D03010	35	100	**64** J	10	04/03/07	04/03/07	B, J
Toluene	EPA 8260B	7D03010	3.6	10	ND	10	04/03/07	04/03/07	
1,2,3-Trichlorobenzene	EPA 8260B	7D03010	3.0	10	ND	10	04/03/07	04/03/07	
1,2,4-Trichlorobenzene	EPA 8260B	7D03010	4.8	10	ND	10	04/03/07	04/03/07	
1,1,2-Trichloroethane	EPA 8260B	7D03010	3.0	10	ND	10	04/03/07	04/03/07	
1,1,1-Trichloroethane	EPA 8260B	7D03010	3.0	10	ND	10	04/03/07	04/03/07	
Trichloroethene	EPA 8260B	7D03010	2.6	10	**160**	10	04/03/07	04/03/07	
Trichlorofluoromethane	EPA 8260B	7D03010	3.4	20	ND	10	04/03/07	04/03/07	
1,2,3-Trichloropropane	EPA 8260B	7D03010	4.0	10	ND	10	04/03/07	04/03/07	L
1,2,4-Trimethylbenzene	EPA 8260B	7D03010	2.3	10	ND	10	04/03/07	04/03/07	
1,3,5-Trimethylbenzene	EPA 8260B	7D03010	2.6	10	ND	10	04/03/07	04/03/07	
Vinyl acetate	EPA 8260B	7D03010	17	60	ND	10	04/03/07	04/03/07	
Vinyl chloride	EPA 8260B	7D03010	3.0	5.0	ND	10	04/03/07	04/03/07	
Xylenes, Total	EPA 8260B	7D03010	9.0	10	ND	10	04/03/07	04/03/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*103 %*				
Surrogate: Dibromofluoromethane (80-120%)					*111 %*				
Surrogate: Toluene-d8 (80-120%)					*109 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/25/2007

LDC #: 16739C1
SDG #: IQC2895
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
Tier 3

Date: 5/10/07
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/27/07
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	% RSD, r^2 ≥ 0.990
IV.	Continuing calibration	SW	
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	TMW-06_WG032707_0001MS/D
VIII.	Laboratory control samples	SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	not reported
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

water
2 = [illegible]K

1	MWB019_WG032707_0001	11	7D03010-BLK1	21		31	
2		12	7D02627-BLK1	22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

DC #: 167390
SDG #: I0C2895

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?		✓		
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

DC #: 16739C1
SDG #: I62C895

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	S. Trichloroethene	KK. Trichlorofluoromethane	CCC. tert-Butylbenzene	UUU. 1,2-Dichlorotetrafluoroethane
B. Bromomethane	T. Dibromochloromethane	LL. Methyl-tert-butyl ether	DDD. 1,2,4-Trimethylbenzene	VVV. 4-Ethyltoluene
C. Vinyl chorlde**	U. 1,1,2-Trichloroethane	MM. 1,2-Dibromo-3-chloropropane	EEE. sec-Butylbenzene	WWW. Ethanol
D. Chloroethane	V. Benzene	NN. Methyl ethyl ketone	FFF. 1,3-Dichlorobenzene	XXX. Di-isopropyl ether
E. Methylene chloride	W. trans-1,3-Dichloropropene	OO. 2,2-Dichloropropane	GGG. p-Isopropyltoluene	YYY. tert-Butanol
F. Acetone	X. Bromoform*	PP. Bromochloromethane	HHH. 1,4-Dichlorobenzene	ZZZ. tert-Butyl alcohol
G. Carbon disulfide	Y. 4-Methyl-2-pentanone	QQ. 1,1-Dichloropropene	III. n-Butylbenzene	AAAA. Ethyl tert-butyl ether
H. 1,1-Dichloroethene**	Z. 2-Hexanone	RR. Dibromomethane	JJJ. 1,2-Dichlorobenzene	BBBB. tert-Amyl methyl ether
I. 1,1-Dichloroethane*	AA. Tetrachloroethene	SS. 1,3-Dichloropropane	KKK. 1,2,4-Trichlorobenzene	CCCC.1-Chlorohexane
J. 1,2-Dichloroethene, total	BB. 1,1,2,2-Tetrachloroethane*	TT. 1,2-Dibromoethane	LLL. Hexachlorobutadiene	DDDD. Isopropyl alcohol
K. Chloroform**	CC. Toluene**	UU. 1,1,1,2-Tetrachloroethane	MMM. Naphthalene	EEEE. Acetonitrile
L. 1,2-Dichloroethane	DD. Chlorobenzene*	VV. Isopropylbenzene	NNN. 1,2,3-Trichlorobenzene	FFFF. Acrolein
M. 2-Butanone	EE. Ethylbenzene**	WW. Bromobenzene	OOO. 1,3,5-Trichlorobenzene	GGGG. Acrylonitrile
N. 1,1,1-Trichloroethane	FF. Styrene	XX. 1,2,3-Trichloropropane	PPP. trans-1,2-Dichloroethene	HHHH. 1,4-Dioxane
O. Carbon tetrachloride	GG. Xylenes, total	YY. n-Propylbenzene	QQQ. cis-1,2-Dichloroethene	IIII. Isobutyl alcohol
P. Bromodichloromethane	HH. Vinyl acetate	ZZ. 2-Chlorotoluene	RRR. m,p-Xylenes	JJJJ. Methacrylonitrile
Q. 1,2-Dichloropropane**	II. 2-Chloroethylvinyl ether	AAA. 1,3,5-Trimethylbenzene	SSS. o-Xylene	KKKK. Propionitrile
R. cis-1,3-Dichloropropene	JJ. Dichlorodifluoromethane	BBB. 4-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	LLLL.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 16739C1
SDG #: FQC2895

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Reviewer: /
2nd Reviewer: /

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Did the laboratory perform a 5 point calibration prior to sample analysis?
(Y) N N/A Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?
(Y) N N/A Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?________
(Y) N N/A Did the initial calibration meet the acceptance criteria?
Y (N) N/A Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤30.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	2/28/07	ICAL-60	M		0.037	All +Blk	J/UJ/A

INICAL.1SB

LDC #: 16739C1
SDG #: IQC2895

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: P
2nd Reviewer: L

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?

Y N N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	4/3/07	CCV	F	109.3		All + BLK	J / NJ / A
			M	70.3		↓	↓
			DD	29.1			
			Z	63.9			

LDC #: 16739C1
SDG #: I QC2895

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a method blank associated with every sample in this SDG?
Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 4/3/07
Conc. units: ug/L
Associated Samples: A 11

Compound	Blank ID	Sample Identification								
	7D030X-	BLK1	1 (10X)							
Tetrahydrofuran Methylene chloride	8.04		64 /100U							
Acetone S	0.480		(160)							
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
CRQL										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 16739C1
SDG #: IQC2895

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: B
2nd Reviewer: A

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

(Y) N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y (N) N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		TMW-06	S	( )	16 (65-125)	( )	none	NO QUAL
		WG032707_006		( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 16739c1
SDG #: IQC2895

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: B
2nd Reviewer: R

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?
Y N N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		7D03010-BS1	F	263 (30-140)	( )	( )	All + Blank	J | P dut
			M	237 (40-140)	( )	( )		
			MM	138 (50-135)	( )	( )		
			Z	211 (45-140)	( )	( )		
			Y	144 (45-140)	( )	( )		
			BB	134 (55-130)	( )	( )		
			XX	136 (60-130)	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC #: 16739C1
SDG #: IQC2895

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: a

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (25 std)	Recalculated RRF (25 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	2/28/07	Methylene chloride (1st internal standard)	0.452	0.452	0.474	0.474	7.78	7.78
			Trichlorethene (2nd internal standard)	0.336	0.336	0.331	0.331	5.92	5.92
			~~Toluene~~ 1,2-Dichlorobenzene (3rd internal standard)	1.365	1.365	1.314	1.314	10.24	10.24
2			~~Methylene chloride~~ Ethyl Benzene (1st internal standard)	1.639	1.639	1.623	1.623	4.92	4.92
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						
3			Methylene chloride (1st internal standard)						
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						
4			Methylene chloride (1st internal standard)						
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16739C1
SDG #: IQC295

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV 6:46	4/2/07	~~Methylene chloride~~ chloroform (1st Internal standard)	0.756	0.872	0.872	15.3	15.3
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					
2	CCV 9:13	4/3/07	Methylene chloride (1st Internal standard)	0.474	0.468	0.468	1.3	1.3
			Trichlorethene (2nd internal standard)	0.331	0.357	0.357	7.9	7.9
			~~Toluene~~ 1,2-DCB (3rd Internal standard)	1.314	1.403	1.403	6.8	6.8
3			~~Methylene chloride~~ ethyl (1st Internal standard)	1.623	1.767	1.767	8.9	8.9
			Trichlorethene (2nd Internal standard)					
			Toluene (3rd Internal standard)					
4			Methylene chloride (1st Internal standard)					
			Trichlorethene (2nd Internal standard)					
			Toluene (3rd Internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16739C1
SDG #: IQC2895

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer:
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1 10X

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	25.0	27.17	109	109	0
Bromofluorobenzene		25.73	103	103	
1,2-Dichloroethane-d4					
Dibromofluoromethane	↓	27.66	111	~~7~~ 111	↓

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

LDC #: 16739C1
SDG #: I8C2895

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: FT
2nd Reviewer: 2

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA

RPD = | MSC - MSDC | * 2/(MSC + MSDC)

Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration; MSC = Matrix spike percent recovery; MSDC = Matrix spike duplicate percent recovery

MS/MSD sample: TMW-06-WG032707_0001 MS ID

Compound	Spike Added (ug/L)		Sample Concentration (ug/L)	Spiked Sample Concentration (ug/L)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	25.0	25.0	13	36.7	36.4	95	95	94	94	1	1
Trichloroethene	↓	↓	140	158	144	72	72	16	16	9	9
Benzene			ND	26.4	26.0	106	106	104	104	2	2
Toluene			ND	26.5	26.2	106	106	105	105	1	1
Chlorobenzene			ND	27.4	27.2	110	110	109	109	1	1

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16739c1
SDG #: IRC2895

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboraotry control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS ID: 7D03010-BS1

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
1,1-Dichloroethene	25.0	NA	24.2	NA	97	97				
Trichloroethene			24.8		99	99				
Benzene			25.3		101	101				
Toluene			25.3		101	101				
Chlorobenzene			26.2		105	105	NA			

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 167391

SDG #: IQC2895

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 6 of 7
Reviewer: K
2nd reviewer: K

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. #1 . 0 :

Conc. = $\frac{(1624)(25)(10)}{(\text{~~5415735~~})(0.423)}$

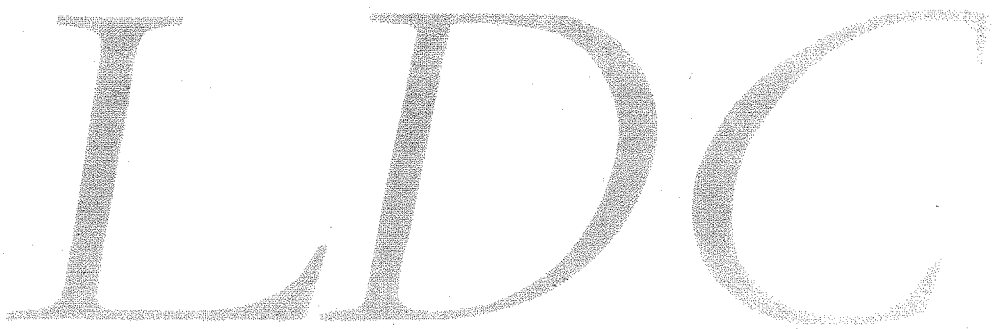
= 911668

10.5 ng/L

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Boeing Realty Corp., Bldg C-6 Torrance
Data Validation Reports
LDC# 16739

Maganese



Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 14, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Manganese

Validation Level: Tier 1

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC1612

Sample Identification

MWB013_WG031407_0001
MWC021_WG031407_0001
MWB013_WG031407_0001MS
MWB013_WG031407_0001MSD

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Manganese.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a Tier 2 review. A Tier 1 review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Tier 1 and 2 criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Tier 1.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample analysis data were not reviewed for Tier 1.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XI. Sample Result Verification

Raw data were not reviewed for this SDG.

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Manganese - Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Manganese - Laboratory Blank Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-05 (MWB013_WG031407_0001 - Water)									
Reporting Units: mg/l									
Manganese	EPA 6010B-Diss	7C14164	N/A	0.020	ND	1	03/14/07	03/15/07	
Sample ID: IQC1612-10 (MWC021_WG031407_0001 - Water)									
Reporting Units: mg/l									
Manganese	EPA 6010B-Diss	7C14164	N/A	0.020	**0.030**	1	03/14/07	03/15/07	
~~**Sample ID: IQC1612-11 (TMW_10_WG031407_0001 - Water)**~~									
Reporting Units: mg/l									
~~Manganese~~	~~EPA 6010B-Diss~~	~~7C14164~~	~~N/A~~	~~0.020~~	~~ND~~	~~1~~	~~03/14/07~~	~~03/15/07~~	
~~**Sample ID: IQC1612-12 (TMW_15_WG031407_0001 - Water)**~~									
Reporting Units: mg/l									
~~Manganese~~	~~EPA 6010B-Diss~~	~~7C14164~~	~~N/A~~	~~0.020~~	~~ND~~	~~1~~	~~03/14/07~~	~~03/15/07~~	

3/15/07

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

LDC #: 16739A4
SDG #: IQC1612
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
EPA ~~Region~~ 1 - Tier 1

Date: 5/10/07
Page: 1 of 1
Reviewer: w
2nd Reviewer: A

METHOD: Manganese (EPA SW 846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/14/07
II.	Calibration	N	
III.	Blanks	A	PB
IV.	ICP Interference Check Sample (ICS) Analysis	N	
V.	Matrix Spike Analysis	A	3 MS/MSD
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS
VIII.	Internal Standard (ICP-MS)	N	Not utilized
IX.	Furnace Atomic Absorption QC	N	
X.	ICP Serial Dilution	N	Not performed
XI.	Sample Result Verification	N	
XII.	Overall Assessment of Data	A	
XIII.	Field Duplicates	N	
XIV.	Field Blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: All

1	MWB013_WG031407_0001	11		21		31	
2	MWC021_WG031407_0001	12		22		32	
3	MWB013_WG031407_0001MS	13		23		33	
4	MWB013_WG031407_0001MSD	14		24		34	
5	PB	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 22, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Manganese

Validation Level: Tier 2

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC2470

Sample Identification

CMW002_WG032207_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Manganese.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XI. Sample Result Verification

Raw data were not reviewed for this SDG.

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Manganese - Data Qualification Summary - SDG IQC2470

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Manganese - Laboratory Blank Data Qualification Summary - SDG IQC2470

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

DISSOLVED METALS

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-08 (MWB003_WG032207_0001 - Water)									
Reporting Units: mg/l									
Manganese	EPA 6010B-Diss	7C23136	0.0070	0.020	**0.31**	1	03/23/07	03/24/07	
Sample ID: IQC2470-10 (WCC06S_WG032207_0001 - Water)									
Reporting Units: mg/l									
Manganese	EPA 6010B-Diss	7C23136	0.0070	0.020	**4.5**	1	03/23/07	03/24/07	
Sample ID: IQC2470-13 (CMW002_WG032207_0001 - Water)									
Reporting Units: mg/l									
Manganese	EPA 6010B-Diss	7C23136	0.0070	0.020	**0.15**	1	03/23/07	03/24/07	
Sample ID: IQC2470-14 (IRZCMW002_WG032207_0001 - Water)									
Reporting Units: mg/l									
Manganese	EPA 6010B-Diss	7C23136	0.0070	0.020	**2.8**	1	03/23/07	03/24/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

Mar 5 1007

LDC #: 16739B4
SDG #: IQC2470
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
EPA ~~Region~~ 1 - Tier 2

Date: 5/10/07
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: A

METHOD: Manganese (EPA SW 846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/22/07
II.	Calibration	A	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	A	
V.	Matrix Spike Analysis	A	non client.
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	yes
VIII.	Internal Standard (ICP-MS)	N	not within limit
IX.	Furnace Atomic Absorption QC	N	
X.	ICP Serial Dilution	N	Not performed
XI.	Sample Result Verification	N	
XII.	Overall Assessment of Data	A	
XIII.	Field Duplicates	N	
XIV.	Field Blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: All

1	CMW002_WG032207_0001	11		21		31	
2	PB	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 27, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Manganese

Validation Level: Tier 3

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC2895

Sample Identification

MWB019_WG032707_0001
MWB019_WG032707_0001MS
MWB019_WG032707_0001MSD

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Manganese.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standard (ICP-MS)

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XI. Sample Result Verification

All sample result verifications were acceptable.

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Manganese - Data Qualification Summary - SDG IQC2895

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Manganese - Laboratory Blank Data Qualification Summary - SDG IQC2895

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2895

Sampled: 03/27/07
Received: 03/27/07

DISSOLVED METALS

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2895-07 (MWB019_WG032707_0001 - Water)									
Reporting Units: mg/l									
Manganese	EPA 6010B-Diss	7C28102	0.0070	0.020	ND	1	03/28/07	03/29/07	
Sample ID: IQC2895-08 (MWC017_WG032707_0001 - Water)									
Reporting Units: mg/l									
Manganese	EPA 6010B-Diss	7C28102	0.0070	0.020	**0.082**	1	03/28/07	03/29/07	
Sample ID: IQC2895-09 (IRZMW005_WG032707_0001 - Water)									
Reporting Units: mg/l									
Manganese	EPA 6010B-Diss	7C28102	0.0070	0.020	**1.6**	1	03/28/07	03/29/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/29/07

LDC #: 16739C4
SDG #: IQC2895
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
EPA ~~Region~~ 1 - Tier 3

Date: 5/10/07
Page: 1 of 1
Reviewer: W
2nd Reviewer: a

METHOD: Manganese (EPA SW 846 Method 6010B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/27/07
II.	Calibration	A	
III.	Blanks	A	
IV.	ICP Interference Check Sample (ICS) Analysis	A	
V.	Matrix Spike Analysis	A	3 MS/MSD
VI.	Duplicate Sample Analysis	N	
VII.	Laboratory Control Samples (LCS)	A	LCS
VIII.	Internal Standard (ICP-MS)	N	Not utilized
IX.	Furnace Atomic Absorption QC	N	
X.	ICP Serial Dilution	N	not performed
XI.	Sample Result Verification	A	
XII.	Overall Assessment of Data	A	
XIII.	Field Duplicates	N	
XIV.	Field Blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: A2

1	MWB019_WG032707_0001	11		21		31	
2	MWB019_WG032707_0001MS	12		22		32	
3	MWB019_WG032707_0001MSD	13		23		33	
4	PB	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 16739c4
SDG #: JAC2895

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: MM
2nd Reviewer: ✓

Method: Metals (EPA SW 846 Method 6010/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% (80-120% for mercury and 85-115% for cyanide) QC limits?	✓			
Were all initial calibration correlation coefficients > 0.995? (Level IV only)	✓			
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. ICP Interference Check Sample				
Were ICP interference check samples performed daily?	✓			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	✓			
IV. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were ≤ 5X the RL, including when only one of the duplicate sample values were < 5X the RL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	✓			
VI. Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?			✓	
Do all applicable analysies have duplicate injections? (Level IV only)			✓	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			✓	
Were analytical spike recoveries within the 85-115% QC limits?			✓	

LDC #: 16739
SDG #: 1AC895

VALIDATION FINDINGS CHECKLIST

Page: 2 of 4
Reviewer: MM
2nd Reviewer: MR

Validation Area	Yes	No	NA	Findings/Comments
VII. ICP Serial Dilution				
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the IDL?			NA	
Were all percent differences (%Ds) < 10%?			✓	
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.			✓	
VIII. Internal Standards (EPA-SW-846 Method 6020)				
Were all the percent recoveries (%R) within the 30-120% of the intensity of the internal standard in the associated initial calibration?			✓	
If the %Rs were outside the criteria, was a reanalysis performed?			✓	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XI. Overall Assessment of Data				
Overall assessment of data was found to be acceptable.	✓			
XII. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
XIII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

LDC #: 16739 C4
SDG #: IQL2895

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: MR
2nd Reviewer: AC

METHOD: Trace Metals (EPA SW 846 Method 6010/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution
True = concentration (in ug/L) of each analyte in the ICV or CCV source

Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	Recalculated %R	Reported %R	Acceptable (Y/N)
ICV	ICP (Initial calibration)	Mn	1.927	2	96	MR	Y
	GFAA (Initial calibration)						
	CVAA (Initial calibration)						
CCV	ICP (Continuing calibration)	Mn	1.03	1	103	MR	Y
	GFAA (Continuing calibration)						
	CVAA (Continuing calibration)						
	Cyanide (Initial calibration)						
	Cyanide (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16739c4
SDG #: TAW895

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: MM
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recaluculated using the following formula:

$$\%R = \frac{Found}{True} \times 100$$

Where, Found = Concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$

Where, S = Original sample concentration
D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

$$\%D = \frac{|I-SDR|}{I} \times 100$$

Where, I = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	Recalculated %R / RPD / %D	Reported %R / RPD / %D	Acceptable (Y/N)
ICSAB	ICP interferance check	Mn	0.4985	0.500	100	NR	Y
LCS	Laboratory control sample	↓	1.063	1.00	106	106	
2	Matrix spike	↓	(SSR-SR) 1.059	1.00	106	106	↓
13	Duplicate	↓	1.07	1.059	1	1	↓
MD	ICP serial dilution						

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.4SW

LDC #:_____
SDG #:_____

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: MV
2nd reviewer: N

METHOD: Trace Metals (EPA SW 846 Method 6010/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments and within the linear range of the ICP?
Y N N/A Are all detection limits below the CRDL?

Detected analyte results for _____ were recalculated and verified using the following equation:

Concentration = $\frac{(RD)(FV)(Dil)}{(In.\ Vol.)(\%S)}$ Recalculation:

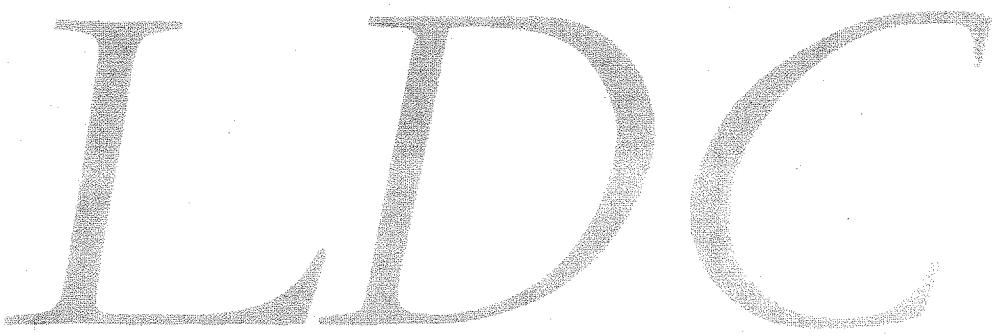
RD = Raw data concentration
FV = Final volume (ml)
In. Vol. = Initial volume (ml) or weight (G)
Dil = Dilution factor
%S = Decimal percent solids

Sample ID	Analyte	Reported Concentration ( )	Calculated Concentration ( )	Acceptable (Y/N)

RECALC.4S2

Boeing Realty Corp., Bldg C-6 Torrance
Data Validation Reports
LDC# 16739

Wet Chemistry



Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 14, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Wet Chemistry

Validation Level: Tier 1

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC1612

Sample Identification

MWB013_WG031407_0001
MWC021_WG031407_0001
MWC021_WG031407_0001MS
MWC021_WG031407_0001MSD

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 300.0 for Chloride, Nitrate, Nitrite, Sulfate, and Orthophosphate, EPA Method 310.1 for Alkalinity, EPA Method 350.3 for Ammonia as Nitrogen, and EPA Method 415.1 for Total Organic Carbon.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration data were not reviewed for Tier 1.

b. Calibration Verification

Calibration verification data were not reviewed for Tier 1.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Wet Chemistry - Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727-01
Report Number: IQC1612

Sampled: 03/14/07
Received: 03/14/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-05 (MWB013_WG031407_0001 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7C23075	N/A	2.0	**150**	1	03/23/07	03/23/07	
Ammonia-N	EPA 350.3	7C26085	N/A	0.50	ND	1	03/26/07	03/26/07	
Chloride	EPA 300.0	7C14053	N/A	25	**300**	50	03/14/07	03/14/07	
Nitrate-NO3	EPA 300.0	7C14053	N/A	25	**60**	50	03/14/07	03/14/07	
Nitrite-NO2	EPA 300.0	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Orthophosphate - PO4	EPA 300.0	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Sulfate	EPA 300.0	7C14053	N/A	25	**320**	50	03/14/07	03/14/07	
Total Organic Carbon	EPA 415.1	7C20118	N/A	1.0	**2.1**	1	03/20/07	03/20/07	
Sample ID: IQC1612-10 (MWC021_WG031407_0001 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7C23075	N/A	2.0	**160**	1	03/23/07	03/23/07	
Ammonia-N	EPA 350.3	7C26085	N/A	0.50	ND	1	03/26/07	03/26/07	
Chloride	EPA 300.0	7C14053	N/A	25	**120**	50	03/14/07	03/14/07	
Nitrate-NO3	EPA 300.0	7C14053	N/A	0.50	**9.9**	1	03/14/07	03/14/07	
Nitrite-NO2	EPA 300.0	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Orthophosphate - PO4	EPA 300.0	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Sulfate	EPA 300.0	7C14053	N/A	0.50	**57**	1	03/14/07	03/14/07	
Total Organic Carbon	EPA 415.1	7C20118	N/A	1.0	ND	1	03/20/07	03/20/07	
~~**Sample ID: IQC1612-11 (TMW_10_WG031407_0001 - Water)**~~									
Reporting Units: mg/l									
~~**Alkalinity as CaCO3**~~	~~EPA 310.1~~	~~7C23075~~	~~N/A~~	2.0	~~**280**~~	~~1~~	~~03/23/07~~	~~03/23/07~~	
Ammonia-N	EPA 350.3	7C26085	N/A	0.50	ND	~~1~~	~~03/26/07~~	03/26/07	
Chloride	EPA 300.0	7C14053	N/A	~~25~~	**560**	50	03/14/07	03/14/07	
Nitrate-NO3	EPA 300.0	~~7C14053~~	N/A	25	**61**	50	03/14/07	03/14/07	
Nitrite-NO2	~~EPA 300.0~~	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Orthophosphate - PO4	EPA 300.0	7C14053	N/A	0.50	**6.4**	1	03/14/07	03/14/07	
Sulfate	EPA 300.0	7C14053	N/A	0.50	**48**	1	03/14/07	03/14/07	
~~**Total Organic Carbon**~~	~~EPA 415.1~~	~~7C20118~~	~~N/A~~	~~1.0~~	**1.8**	1	03/20/07	03/20/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/27/07

LDC #: 16739A6
SDG #: IQC1612
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
EPA Region 1 - Tier 1

Date: 4/10/07
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Alkalinity (EPA Method 310.1), Ammonia-N (EPA Method 350.3), Chloride, Nitrate-N, Nitrite-N, Sulfate, Orthophosphate-P (EPA Method 300.0), TOC (EPA Method 415.1)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/14/07
IIa.	Initial calibration	N	
IIb.	Calibration verification	N	
III.	Blanks	A	MB
IVa.	Matrix Spike/(Matrix Spike) Duplicates	A	MS/MSD/Dup
IVb.	Laboratory control samples	A	LCS
V.	Sample result verification	N	
VI.	Overall assessment of data	A	
VII.	Field duplicates	N	
VIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: All

1	MWB013_WG031407_0001	11		21		31	
2	MWC021_WG031407_0001	12		22		32	
3	MWC021_WG031407_0001MS	13		23		33	
4	MWC021_WG031407_0001MSD	14		24		34	
5	MB	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 16739A6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer:
2nd reviewer: ______

All circled methods are applicable to each sample.

Sample ID	Parameter
1, 2	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
3, 4	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments: ______

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 22, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Wet Chemistry

Validation Level: Tier 1 & 2

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC2470

Sample Identification

CMW001_WG032207_0001
CMW002_WG032207_0001**
CMW001_WG032207_0001MS
CMW001_WG032207_0001MSD

**Indicates sample underwent Tier 2 review

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 300.0 for Chloride, Nitrate, Nitrite, Sulfate, and Orthophosphate, EPA Method 310.1 for Alkalinity, EPA Method 350.3 for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, and EPA Method 415.1 for Total Organic Carbon.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Samples indicated by a double asterisk on the front cover underwent a Tier 2 review. A Tier 1 review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Tier 1 criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

Initial calibration data were not reviewed for Tier 1.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

Calibration verification data were not reviewed for Tier 1.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Wet Chemistry - Data Qualification Summary - SDG IQC2470

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG IQC2470

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2470

Sampled: 03/22/07
Received: 03/22/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
~~Sample ID: IQC2470-08 (MWB003_WG032207_0001 - Water)~~									
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7D02058	2.0	2.0	**340**	1	04/02/07	04/02/07	
Ammonia-N	EPA 350.3	7D03070	0.070	0.50	**0.089**	1	04/03/07	04/03/07	J
Chloride	EPA 300.0	7C23041	5.0	25	**460**	50	03/23/07	03/24/07	
Nitrate-NO3	EPA 300.0	7C22150	0.25	0.50	**8.4**	1	03/22/07	03/23/07	
Nitrite-NO2	EPA 300.0	7C22150	3.0	5.0	ND	10	03/22/07	03/23/07	RL1
Orthophosphate - PO4	EPA 300.0	7C22150	0.40	0.50	ND	1	03/22/07	03/23/07	
Sulfate	EPA 300.0	7C22150	0.15	0.50	**32**	1	03/22/07	03/23/07	
Total Organic Carbon	EPA 415.1	7C29166	0.50	1.0	**1.6**	1	03/29/07	03/29/07	
Sample ID: IQC2470-10 (WCC06S_WG032207_0001 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7D02058	2.0	2.0	**340**	1	04/02/07	04/02/07	
Ammonia-N	EPA 350.3	7D03070	0.070	0.50	**0.35**	1	04/03/07	04/03/07	J
Chloride	EPA 300.0	7C23041	5.0	25	**520**	50	03/23/07	03/24/07	
Nitrate-NO3	EPA 300.0	7C22150	0.25	0.50	**2.9**	1	03/22/07	03/23/07	
Nitrite-NO2	EPA 300.0	7C22150	3.0	5.0	ND	10	03/22/07	03/23/07	RL1
Orthophosphate - PO4	EPA 300.0	7C22150	0.40	0.50	ND	1	03/22/07	03/23/07	
Sulfate	EPA 300.0	7C22150	0.15	0.50	**18**	1	03/22/07	03/23/07	
~~Total Organic Carbon~~	EPA 415.1	7C29166	0.50	1.0	**5.2**	1	03/29/07	03/29/07	
Sample ID: IQC2470-11 (CMW001_WG032207_0001 - Water)									
Reporting Units: mg/l									
Sulfide	EPA 376.2	7C27124	0.010	0.10	**0.032**	1	03/27/07	03/27/07	J
Sample ID: IQC2470-13 (CMW002_WG032207_0001 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7D02058	2.0	2.0	ND	1	04/02/07	04/02/07	
Ammonia-N	EPA 350.3	7D03070	0.070	0.50	**0.17**	1	04/03/07	04/03/07	J
Chloride	EPA 300.0	7C22150	1.0	5.0	**120**	10	03/22/07	03/23/07	
Nitrate-NO3	EPA 300.0	7C22150	0.25	0.50	ND	1	03/22/07	03/23/07	
Nitrite-NO2	EPA 300.0	7C22150	3.0	5.0	ND	10	03/22/07	03/23/07	RL1
Orthophosphate - PO4	EPA 300.0	7C22150	0.40	0.50	ND	1	03/22/07	03/23/07	
Sulfate	EPA 300.0	7C22150	1.5	5.0	**98**	10	03/22/07	03/23/07	
Sulfide	EPA 376.2	7C27124	0.010	0.10	**0.081**	1	03/27/07	03/27/07	J
Total Organic Carbon	EPA 415.1	7C29166	0.50	1.0	**14**	1	03/29/07	03/29/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

Mar 1 07

LDC #: 16739B6
SDG #: IQC2470
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
EPA ~~Region~~ 1 - Tier 1/2

Date: 5/10/07
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Alkalinity (EPA Method 310.1), Ammonia-N (EPA Method 350.3), Chloride, Nitrate-~~N~~, Nitrite-~~N~~, Sulfate, Orthophosphate-~~P~~ (EPA Method 300.0), Sulfide (EPA Method 376.2), TOC (EPA Method 415.1)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/22/07
IIa.	Initial calibration	A	Not reviewed for Tier I validation.
IIb.	Calibration verification	A	Not reviewed for Tier I validation.
III.	Blanks	A	
IVa.	Matrix Spike/(Matrix Spike) Duplicates	A	MS/MSD/Dup
IVb.	Laboratory control samples	A	LCS
V.	Sample result verification	N	
VI.	Overall assessment of data	A	
VII.	Field duplicates	N	
VIII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:* Indicates sample underwent Tier II validation

All

1	CMW001_WG032207_0001*	11		21		31	
2	CMW002_WG032207_0001 **	12		22		32	
3	CMW001_WG032207_0001MS	13		23		33	
4	CMW001_WG032207_0001MSD	14		24		34	
5	MB	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 16739B6
SDG #: [illegible]470

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: [illegible]
2nd reviewer: [illegible]

All circled methods are applicable to each sample.

Sample ID	Parameter
1	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} [✓ S] ____ ____ ____
2	pH TDS [✓ Cl] F [✓ NO_3] [✓ NO_2] [✓ SO_4] [✓ PO_4] [✓ ALK] CN^- [✓ NH_3] TKN [✓ TOC] CR^{6+} [✓ S] ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
3, 4	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} [✓ S] ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments: ____________________

METHODS.6

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 27, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Wet Chemistry

Validation Level: Tier 3

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): IQC2895

Sample Identification

MWB019_WG032707_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 300.0 for Chloride, Nitrate, Nitrite, Sulfate, and Orthophosphate, EPA Method 310.1 for Alkalinity, EPA Method 350.3 for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, and EPA Method 415.1 for Total Organic Carbon.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of this method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for this method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Concentration	Associated Samples
MB	Ammonia as N	0.0783 mg/L	All samples in SDG IQC2895
ICB/CCB	Ammonia as N Orthophosphate	0.1038 mg/L 0.436 mg/L	All samples in SDG IQC2895

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
MWB019_WG032707_0001	Ammonia as N	0.19 mg/L	0.19U mg/L

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

All sample result verifications were acceptable.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Wet Chemistry - Data Qualification Summary - SDG IQC2895

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG IQC2895

SDG	Sample	Analyte	Modified Final Concentration	A or P
IQC2895	MWB019_WG032707_0001	Ammonia as N	0.19U mg/L	A

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance
EM2727
Report Number: IQC2895

Sampled: 03/27/07
Received: 03/27/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2895-07 (MWB019_WG032707_0001 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7D05119	2.0	2.0	**390**	1	04/05/07	04/05/07	
Ammonia-N	EPA 350.3	7D09073	0.070	0.50	**0.19** U	1	04/09/07	04/09/07	B, J
Chloride	EPA 300.0	7C27042	2.0	10	**290**	20	03/27/07	03/28/07	
Nitrate-NO3	EPA 300.0	7C27042	5.0	10	**110**	20	03/27/07	03/28/07	
Nitrite-NO2	EPA 300.0	7C27042	6.0	10	ND	20	03/27/07	03/28/07	RL1
Orthophosphate - PO4	EPA 300.0	7C27042	0.40	0.50	ND	1	03/27/07	03/27/07	
Sulfate	EPA 300.0	7C27042	3.0	10	**560**	20	03/27/07	03/28/07	
Sulfide	EPA 376.2	7D02095	0.010	0.10	**0.026**	1	04/02/07	04/02/07	J
Total Organic Carbon	EPA 415.1	7D03118	0.50	1.0	**1.5**	1	04/03/07	04/03/07	
Sample ID: IQC2895-08 (MWC017_WG032707_0001 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7D05119	2.0	2.0	**200**	1	04/05/07	04/05/07	
Ammonia-N	EPA 350.3	7D09073	0.070	0.50	**0.12**	1	04/09/07	04/09/07	B, J
Chloride	EPA 300.0	7C27042	1.0	5.0	**99**	10	03/27/07	03/28/07	
Nitrate-NO3	EPA 300.0	7C27042	0.25	0.50	**11**	1	03/27/07	03/27/07	
Nitrite-NO2	EPA 300.0	7C27042	0.30	0.50	ND	1	03/27/07	03/27/07	
Orthophosphate - PO4	EPA 300.0	7C27042	0.40	0.50	ND	1	03/27/07	03/27/07	
Sulfate	EPA 300.0	7C27042	0.15	0.50	**58**	1	03/27/07	03/27/07	
Sulfide	EPA 376.2	7D02095	0.010	0.10	**0.023**	1	04/02/07	04/02/07	J
Total Organic Carbon	EPA 415.1	7D03118	0.50	1.0	ND	1	04/03/07	04/03/07	
Sample ID: IQC2895-09 (IRZMW005_WG032707_0001 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7D05119	2.0	2.0	**360**	1	04/05/07	04/05/07	
Ammonia-N	EPA 350.3	7D09073	0.070	0.50	**3.8**	1	04/09/07	04/09/07	
Chloride	EPA 300.0	7C27042	2.0	10	**290**	20	03/27/07	03/28/07	
Nitrate-NO3	EPA 300.0	7C27042	0.25	0.50	**1.5**	1	03/27/07	03/27/07	
Nitrite-NO2	EPA 300.0	7C27042	0.30	0.50	ND	1	03/27/07	03/27/07	
Orthophosphate - PO4	EPA 300.0	7C27042	0.40	0.50	ND	1	03/27/07	03/27/07	
Sulfate	EPA 300.0	7C27042	0.15	0.50	**30**	1	03/27/07	03/27/07	
Sulfide	EPA 376.2	7D02095	0.20	2.0	**4.1**	20	04/02/07	04/02/07	
Total Organic Carbon	EPA 415.1	7D03118	0.50	1.0	**3.2**	1	04/03/07	04/03/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

LDC #: 16739C6
SDG #: IQC2895
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET

EPA ~~Region~~ 1 - Tier 3

Date: 5/10/07
Page: 1 of 1
Reviewer: W
2nd Reviewer: 1

METHOD: Alkalinity (EPA Method 310.1), Ammonia-N (EPA Method 350.3), Chloride, Nitrate-~~N~~, Nitrite-~~N~~, Sulfate, Orthophosphate-~~P~~ (EPA Method 300.0), Sulfide (EPA Method 376.2), TOC (EPA Method 415.1)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/27/07
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	SW	
IVa.	Matrix Spike/(Matrix Spike) Duplicates	A	MS/MSD/MP
IVb.	Laboratory control samples	A	LCS
V.	Sample result verification	A	
VI.	Overall assessment of data	A	
VII.	Field duplicates	N	
VIII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	MWB019_WG032707_0001	11		21		31	
2	MB	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 16935C6
SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: MH
2nd Reviewer: AV

Method: Inorganics (EPA Method See cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)	✓			
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		✓		(non client)
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were < 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 16739C6
SDG #: See cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: MG
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target analytes were detected in the field duplicates.			✓	
X. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

LDC #: 16739C6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: MY
2nd reviewer: a

All circled methods are applicable to each sample.

Sample ID	Parameter
1	pH TDS (Cl) F (NO_3) (NO_2) (SO_4) (PO_4) (ALK) CN^- (NH_3) TKN (TOC) CR^{6+} (S)
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments:

METHODS.6

LDC #: 16739C6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: MM
2nd Reviewer: AC

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
(Y) N N/A Were all samples associated with a given method blank?
(Y) N N/A Were any inorganic contaminants detected above the reporting limit in the method blanks? If yes, please see qualifications below.

Conc. units: mg/L **Associated Samples:** All

Analyte	Blank ID	Maximum ICB/CCB	Blank Action Limit	Sample Identification								
	MB			1								
NH_3-N	0.0783	0.1038	0.519	0.19								
o-PO4		0.436	2.18									

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the methoc blank concentration were qualified as not detected, "U".

LDC #: 16739C6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: MM
2nd Reviewer: JL

METHOD: Inorganics, Method See Cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	PO_4	4.67	5.00	93	93	Y
IPC393-36	Matrix spike sample	NH_3-N	(SSR-SR) 2.15	2.00	108	108	↓
IPC384-5	Duplicate sample	N/A	~~2.00~~ 1.80	1.80	0	0	↓

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.6

LDC #: 16739 c6
SDG #: See Cover

Validatin Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Reviewer: w
2nd Reviewer: R

Method: Inorganics, Method See cover

The correlation coefficient (r) for the calibration of Cl was recalculated.Calibration date: 3/27/09

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of analysis	Analyte	Standard	conc. Mg/L	Area	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration		s1	0	7197.84			
Calibration verification	Cl	s2	0.2	21609.41	*0.999986*	0.999986	
		s3	0.5	57145.97			Y
		s4	5	589558.07			
		s5	10	1264022.24			
		s6	20	2754745.98			
		s7	30	4466513.23			
CCV Calibration verification	NO3	10	10.28		103	NR	Y
CCV Calibration verification	NH3-N	1.0	1.082		108	↓	↓
CCV Calibration verification	S	0.342	0.347		101	↓	↓

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16739C6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: MM
2nd reviewer: A

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Have results been reported and calculated correctly?
(Y) N N/A Are results within the calibrated range of the instruments?
(Y) N N/A Are all detection limits below the CRQL?

Compound (analyte) results for 1 reported with a positive detect were recalculated and verified using the following equation:

Concentration =

$$TOC = \frac{Area - 96,918}{312.24}$$

Recalculation:

$$TOC = \frac{554 - 96.918}{312.24} = 1.464 \text{ mg/L}$$

#	Sample ID	Analyte	Reported Concentration (mg/L)	Calculated Concentration (mg/L)	Acceptable (Y/N)
1	1	Alk	390	390	Y
		NH_3-N	0.19	0.19	
		Cl	290	290	
		NO_3	110	110	
		SO_4	560	560	
		S	0.026	0.026	
		TOC	1.5	1.5	

Note:

RECALC.6

Boeing Realty Corp., Bldg C-6 Torrance
Data Validation Reports
LDC# 16739

Dissolved Gases

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 14, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Dissolved Gases

Validation Level: Tier 1

Laboratory: TestAmerica/Air Technology Laboratories, Inc.

Sample Delivery Group (SDG): IQC1612/A7031508

Sample Identification

MWB013_WG031407_0001
MWC021_WG031407_0001

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method RSK-175 for Dissolved Gases.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration data were not reviewed for Tier 1.

b. Calibration Verification

Calibration verification data were not reviewed for Tier 1.

III. Blanks

Method blanks were performed at the required frequency. No dissolved gas contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Not required by the method.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were analyzed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Dissolved Gases - Data Qualification Summary - SDG IQC1612/A7031508

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Dissolved Gases - Laboratory Blank Data Qualification Summary - SDG IQC1612/A7031508

No Sample Data Qualified in this SDG

Client: TestAmerica
Attn: Nicholas Marz

Client's Project: IQC1612
Date Received: 3/15/2007
Matrix: Water
Units: ug/L

Dissolved Gases by EPA Procedure RSKSOP-175

MWB013 MWC021-WG031407-0001

Lab No.:	A7031508-01		A7031508-02		~~A7031508-03~~		~~A7031508-04~~			
Client Sample I.D.:	IQC1612-05		IQC1612-10		IQC1612-11		IQC1612-12			
Date Sampled:	3/14/2007		3/14/2007		3/14/2007		3/14/2007			
Date Analyzed:	3/20/2007		3/20/2007		3/20/2007		3/20/2007			
Analyst Initials:	DT		DT		DT		DT			
Data File:	20mar018		20mar019		20mar020		20mar021			
QC Batch:	070320GC8A1		070320GC8A1		070320GC8A1		070320GC8A1			
Dilution Factor:	1.0		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	RL	Results	RL	Results	RL	Results		
Methane	1.0	1.0	2.3	1.0	67	1.0	13	1.0	12		
Ethane	2.0	2.0	ND	2.0	ND	2.0	ND	2.0	ND		
Ethylene	3.0	3.0	ND	3.0	ND	3.0	ND	3.0	ND		
Carbon Dioxide	200	200	8,500	200	13,000	200	53,000	200	28,000		
Nitrogen	1,500	1,500	94,000	1,500	94,000	~~1,500~~	~~90,000~~	1,500	91,000		

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL)
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 3-27-07
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

3/15/2007

LDC #: 16739A51 **VALIDATION COMPLETENESS WORKSHEET** Date: 5/10/07

SDG #: IQC1612/A7031508 Tier 1 Page: 1 of 1

Laboratory: ~~Del Mar Analytical~~/Air Technology Laboratory, Inc. Reviewer: [illegible]

Test America 2nd Reviewer: [illegible]

METHOD: GC Dissolved Gases (Method RSK-175)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/14/07
IIa.	Initial calibration	N	
IIb.	Calibration verification	N	
III.	Blanks	A	
IVa.	Surrogate recovery	N	not required
IVb.	Matrix spike/Matrix spike duplicates	N	client specified
IVc.	Laboratory control samples	A	2cs ID
V.	Target compound identification	N	
VI.	Compound Quantitation and CRQLs	N	
VII.	System Performance	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	MWB013_WG031407_0001	11	MB-3/20/07	21		31	
2	MWC021_WG031407_0001	12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 22, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Dissolved Gases

Validation Level: Tier 2

Laboratory: TestAmerica/Air Technology Laboratory, Inc.

Sample Delivery Group (SDG): IQC2470/A7032601

Sample Identification

CMW002_WG032207_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method RSK-175 for Dissolved Gases.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 25.0% QC limits.

III. Blanks

Method blanks were performed at the required frequency. No dissolved gas contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Not required by the method.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were analyzed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Dissolved Gases - Data Qualification Summary - SDG IQC2470/A7032601

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Dissolved Gases - Laboratory Blank Data Qualification Summary - SDG IQC2470/A7032601

No Sample Data Qualified in this SDG

Client: TestAmerica
Attn: Nicholas Marz

Client's Project: IQC2470
Date Received: 3/23/2007
Matrix: Water
Units: ug/L

Dissolved Gases by EPA Procedure RSKSOP-175

CMW002-WG032207-000

Lab No.:		A7032601-01		A7032601-02		A7032601-03		A7032601-04		
Client Sample I.D.:		IQC2470-08		IQC2470-10		IQC2470-13		IQC2470-14		
Date Sampled:		3/22/2007		3/22/2007		3/22/2007		3/22/2007		
Date Analyzed:		3/27/2007		3/27/2007		3/27/2007		3/27/2007		
Analyst Initials:		DT		DT		DT		DT		
Data File:		27mar012		27mar013		27mar014		27mar015		
QC Batch:		070327GC8A1		070327GC8A1		070327GC8A1		070327GC8A1		
Dilution Factor:		1.0		1.0		1.0		1.0		
ANALYTE	PQL	RL	Results	RL	Results	RL	Results	RL	Results	
Methane	1.0	1.0	8.8	1.0	3.4	1.0	1.8	1.0	17,000	
Ethane	2.0	2.0	ND	2.0	ND	2.0	ND	2.0	ND	
Ethylene	3.0	3.0	ND	3.0	ND	3.0	5.9	3.0	12	
Carbon Dioxide	200	200	50,000	200	92,000	200	13,000	200	210,000	
Nitrogen	1,500	1,500	110,000	1,500	110,000	1,500	110,000	1,500	81,000	

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL)
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ **Date:** 4/2/07
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

4/5/2007

LDC #: 16739B51 **VALIDATION COMPLETENESS WORKSHEET** Date: 5/10/07

SDG #: IQC2470/A7032601 Tier 2 Page: 1 of 1

Laboratory: ~~Del Mar Analytical~~/Air Technology Laboratory, Inc. Reviewer:

Test America 2nd Reviewer:

METHOD: GC Dissolved Gases (Method RSK-175)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/22/07
IIa.	Initial calibration	A	r^2 ≥ 0.990
IIb.	Calibration verification	A	%D ≤ 25
III.	Blanks	A	
IVa.	Surrogate recovery	N	not Required
IVb.	Matrix spike/Matrix spike duplicates	N	client specific
IVc.	Laboratory control samples	A	LCS ID
V.	Target compound identification	N	
VI.	Compound Quantitation and CRQLs	N	
VII.	System Performance	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	CMW002_WG032207_0001	11	MB - 3/27/07	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-6 Torrance

Collection Date: March 27, 2007

LDC Report Date: May 10, 2007

Matrix: Water

Parameters: Dissolved Gases

Validation Level: Tier 3

Laboratory: TestAmerica/Air Technology Laboratory, Inc.

Sample Delivery Group (SDG): IQC2895/A7032807

Sample Identification

MWB019_WG032707_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method RSK-175 for Dissolved Gases.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 25.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No dissolved gas contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were not required by the method.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance
Dissolved Gases - Data Qualification Summary - SDG IQC2895/A7032807

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance
Dissolved Gases - Laboratory Blank Data Qualification Summary - SDG IQC2895/A7032807

No Sample Data Qualified in this SDG

Client: TestAmerica
Attn: Nicholas Marz

Client's Project: IQC2895
Date Received: 3/28/2007
Matrix: Water
Units: ug/L

Dissolved Gases by EPA Procedure RSKSOP-175

MWB019-WG032707-000

Lab No.:		A7032807-01		A7032807-02		A7032807-03					
Client Sample I.D.:		IQC2895-07		IQC2895-08		IQC2895-09					
Date Sampled:		3/27/2007		3/27/2007		3/27/2007					
Date Analyzed:		4/2/2007		4/2/2007		4/2/2007					
Analyst Initials:		DT		DT		DT					
Data File:		02apr009		02apr010		02apr011					
QC Batch:		070402GC8A1		070402GC8A1		070402GC8A1					
Dilution Factor:		1.0		1.0		1.0					
ANALYTE	PQL	RL	Results	RL	Results	RL	Results				
Methane	1.0	1.0	ND	1.0	10,000	1.0	3.5				
Ethane	2.0	2.0	ND	2.0	ND	2.0	ND				
Ethylene	3.0	3.0	ND	3.0	14	3.0	ND				
Carbon Dioxide	200	200	78,000	200	83,000	200	11,000				
Nitrogen	1,500	1,500	110,000	1,500	100,000	1,500	110,000				

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL)
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ **Date:** 4/6/07
Mark J. Johnson
Operations Manager

The cover letter is an integral part of this analytical report.

LDC #: 16739C51 **VALIDATION COMPLETENESS WORKSHEET** Date: 5/10/07

SDG #: IQC2895/A7032807 Tier 3 Page: 1 of 1

Laboratory: ~~Del Mar Analytical~~/Air Technology Laboratory, Inc. Reviewer: [illegible]

Test America 2nd Reviewer: [illegible]

METHOD: GC Dissolved Gases (Method RSK-175)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/27/07
IIa.	Initial calibration	A	$r^2 \geq 0.990$
IIb.	Calibration verification	A	%D ≤ x
III.	Blanks	A	
IVa.	Surrogate recovery	N	not Required
IVb.	Matrix spike/Matrix spike duplicates	N	client specified
IVc.	Laboratory control samples	A	LCS/D
V.	Target compound identification	A	
VI.	Compound Quantitation and CRQLs	A	
VII.	System Performance	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	MWB019_WG032707_0001	11	MB - 4/2/07	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 16739C5 /
SDG #: All cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?		✓		
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?	✓			
Did the initial calibration meet the curve fit acceptance criteria?	✓			
Were the RT windows properly established?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ____%D or ____%R	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ ~~15%~~ 25.0 or percent recoveries 85-115%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?			✓	
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			

LDC #: 16739C51
SDG #: pet cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?				
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Were field duplicate pairs identified in this SDG?		✓		
Were target compounds idetected in the field duplicates?			✓	
XV. Field blanks				
Were field blanks identified in this SDG?		✓		
Were target compounds detected in the field blanks?			✓	

LDC # 16739C5 /
SDG# all cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Carbon Dioxide (Method RSK-175)

Parameter: ~~Methane~~ Carbon Dioxide

Order of regression: 1

Date	Column/Detector	Compound	X Mass (ppmV)	Y Area
05/24/2007	TCD	CO2	100	552
			1000	3718
	Front		5000	18595
			10000	40200
			100000	428338
			500000	1987935.0

Regression Output:		Reported	
Constant	0.0	Constant	0.0
Std Err of Y Est	13500.069		
R Squared	0.99971	R Squared	0.999749
No. of Observations	6.000		
Degrees of Freedom	5.000		
X Coefficient(s)	3.98768E+000	X Coefficient(s)	3.98770E+000
Std Err of Coef.	0.03		

LDC #: 16739c51
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %R	Recalculated %D
1	CCV	4/2/07	CO_2	10000	12151	12151	21.5	21.5
	9:09							
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16739C5 1
SDG #: fu eouw

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

_____METHOD: __GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration
SA = Spike added
SC = Sample concentration

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: Les 1D

Compound	Spike Added (ppmw)		Sample Conc. (ppmw)	Spike Sample Concentration (ppmw)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	---	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)	7000	7000	0	7484.3	6375.8	108	108	92	91.1	16	16
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16739c51
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: B
2nd Reviewer: W

METHOD: __ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the Initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name CO_2

Concentration = _____

$y = mx$

$183283 = (3.9877)(x)$

$x = 45962.258 = 0.04596$ ppmv

#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations	Qualifications
		gas in HS = $\frac{0.04596\,(55.51)(44)(1000)}{1640}$		= 68.44	
		gas in liquid = $\frac{(0.04596)(44)(4)}{(22.4)(36)(298)}$	$\frac{(1000)(273)}{}$	= 9.18 mg/L	
		TOTAL = (68.44 + 9.18)(1000) =		78,000 ug/L	

Comments: _____

SAMPCALew.wpd

BOE-C6-0054640

LABORATORY DATA CONSULTANTS, INC.
7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Tait Environmental Management, Inc.
701 N. Park Center Drive
Santa Ana, CA 92705
ATTN: Mr. Matt Hillman

May 1, 2007

SUBJECT: Boeing Realty Corp. Bldg C-1 Long Beach, Data Validation

Dear Mr. Hillman,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on April 9, 2007. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 16591:

SDG #	Fraction
IQC0980, IQC1776	Volatiles, Semivolatiles, TPH as Extractables, Hexavalent Chromium

The data validation was performed under Tier 1, Tier 2 and Tier 3 guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 1999
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998

Please feel free to contact us if you have any questions.

Sincerely,

Stella S. Cuenco
Project Manager/Senior Chemist

16591COV.wpd

Attachment 1

LDC #16591 (Tait Environmenal Management, Inc. / Boeing Realty Corp., Bldg C-1 Long Beach)

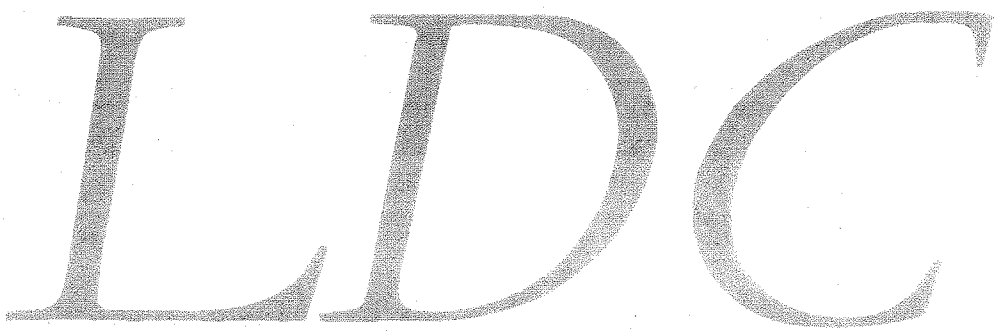
LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (8260B)		SVOA (8270C)		TPH-E (8015)		Cr(VI) (7196A)																							
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	IQC0980	04/11/07	05/02/07	-	-	-	-	-	-	1	0	Tier I																					
A	IQC0980	04/11/07	05/02/07	-	-	-	-	-	-	1	0																						
A	IQC0980	04/11/07	05/02/07	-	-	-	-	-	-	1	0																						
B	IQC1776	04/11/07	05/02/07	1	0	1	0	1	0	-	-																						
Total	B/SC			1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

Shaded cells indicate Tier III validation (all other cells are Tier II validation). Sample counts do not include MS, MSD, or DUP's.

16591ST.wpd

Boeing Realty Corp., Bldg C-1 Long Beach
Data Validation Reports
LDC# 16591

Volatiles



Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date: March 15, 2007

LDC Report Date: April 30, 2007

Matrix: Water

Parameters: Volatiles

Validation Level: Tier 3

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC1776

Sample Identification

MW3017_WG031507_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990 .

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
2/28/07	2-Butanone	0.037 (≥0.05)	All samples in SDG IQC1776	J (all detects) UJ (all non-detects)	A

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

All of the continuing calibration RRF values were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
3/20/07	2-Butanone	0.040 (≥0.05)	All samples in SDG IQC1776	J (all detects) UJ (all non-detects)	A

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
7C20023-BLK1	3/20/07	Tetrahydrofuran	8.39 ug/L	All samples in SDG IQC1776

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
7C20023-BS1	2-Butanone 2-Hexanone	160 (40-140 151 (45-140)	All samples in SDG IQC1776	J (all detects) J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach
Volatiles - Data Qualification Summary - SDG IQC1776

SDG	Sample	Compound	Flag	A or P	Reason
IQC1776	MW3017_WG031507_0001	2-Butanone	J (all detects) UJ (all non-detects)	A	Initial calibration (RRF)
IQC1776	MW3017_WG031507_0001	2-Butanone	J (all detects) UJ (all non-detects)	A	Continuing calibration (RRF)
IQC1776	MW3017_WG031507_0001	2-Butanone 2-Hexanone	J (all detects) J (all detects)	P	Laboratory control samples (%R)

Boeing Realty Corp., Bldg C-1 Long Beach
Volatiles - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017_WG031507_0001 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	7C20023	0.28	1.0	**1.1**	1	03/20/07	03/20/07	
Bromobenzene	EPA 8260B	7C20023	0.27	1.0	ND	1	03/20/07	03/20/07	
Bromochloromethane	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07	
Bromodichloromethane	EPA 8260B	7C20023	0.30	1.0	ND	1	03/20/07	03/20/07	
Bromoform	EPA 8260B	7C20023	0.40	1.0	ND	1	03/20/07	03/20/07	
Bromomethane	EPA 8260B	7C20023	0.42	1.0	ND	1	03/20/07	03/20/07	
2-Butanone (MEK)	EPA 8260B	7C20023	3.8	5.0	ND UJ	1	03/20/07	03/20/07	L
n-Butylbenzene	EPA 8260B	7C20023	0.37	1.0	ND	1	03/20/07	03/20/07	
sec-Butylbenzene	EPA 8260B	7C20023	0.25	1.0	**8.3**	1	03/20/07	03/20/07	
tert-Butylbenzene	EPA 8260B	7C20023	0.22	1.0	**0.89**	1	03/20/07	03/20/07	J
Carbon Disulfide	EPA 8260B	7C20023	0.48	1.0	**0.68**	1	03/20/07	03/20/07	J
Carbon tetrachloride	EPA 8260B	7C20023	0.28	0.50	ND	1	03/20/07	03/20/07	
Chlorobenzene	EPA 8260B	7C20023	0.36	1.0	ND	1	03/20/07	03/20/07	
Chloroethane	EPA 8260B	7C20023	0.40	2.0	**0.65**	1	03/20/07	03/20/07	J
Chloroform	EPA 8260B	7C20023	0.33	1.0	ND	1	03/20/07	03/20/07	
Chloromethane	EPA 8260B	7C20023	0.40	2.0	ND	1	03/20/07	03/20/07	
2-Chlorotoluene	EPA 8260B	7C20023	0.28	1.0	ND	1	03/20/07	03/20/07	
4-Chlorotoluene	EPA 8260B	7C20023	0.29	1.0	ND	1	03/20/07	03/20/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C20023	0.97	2.0	ND	1	03/20/07	03/20/07	
Dibromochloromethane	EPA 8260B	7C20023	0.28	1.0	ND	1	03/20/07	03/20/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C20023	0.40	1.0	ND	1	03/20/07	03/20/07	
1,4-Dichlorobenzene	EPA 8260B	7C20023	0.37	1.0	ND	1	03/20/07	03/20/07	
1,2-Dichlorobenzene	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07	
1,3-Dichlorobenzene	EPA 8260B	7C20023	0.35	1.0	ND	1	03/20/07	03/20/07	
Dichlorodifluoromethane	EPA 8260B	7C20023	0.79	1.0	ND	1	03/20/07	03/20/07	
1,2-Dichloroethane	EPA 8260B	7C20023	0.28	0.50	**1.2**	1	03/20/07	03/20/07	
1,1-Dichloroethane	EPA 8260B	7C20023	0.27	1.0	**2.6**	1	03/20/07	03/20/07	
1,1-Dichloroethene	EPA 8260B	7C20023	0.42	1.0	ND	1	03/20/07	03/20/07	
cis-1,2-Dichloroethene	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07	
trans-1,2-Dichloroethene	EPA 8260B	7C20023	0.27	1.0	ND	1	03/20/07	03/20/07	
1,2-Dichloropropane	EPA 8260B	7C20023	0.35	1.0	ND	1	03/20/07	03/20/07	
2,2-Dichloropropane	EPA 8260B	7C20023	0.34	1.0	ND	1	03/20/07	03/20/07	
cis-1,3-Dichloropropene	EPA 8260B	7C20023	0.22	0.50	ND	1	03/20/07	03/20/07	
1,1-Dichloropropene	EPA 8260B	7C20023	0.28	1.0	ND	1	03/20/07	03/20/07	
trans-1,3-Dichloropropene	EPA 8260B	7C20023	0.32	0.50	ND	1	03/20/07	03/20/07	
Ethylbenzene	EPA 8260B	7C20023	0.25	1.0	**9.4**	1	03/20/07	03/20/07	
Hexachlorobutadiene	EPA 8260B	7C20023	0.38	1.0	ND	1	03/20/07	03/20/07	
2-Hexanone	EPA 8260B	7C20023	2.6	6.0	ND	1	03/20/07	03/20/07	L
Iodomethane	EPA 8260B	7C20023	1.0	2.0	ND	1	03/20/07	03/20/07	
Isopropylbenzene	EPA 8260B	7C20023	0.25	1.0	**8.8**	1	03/20/07	03/20/07	
p-Isopropyltoluene	EPA 8260B	7C20023	0.28	1.0	**1.6**	1	03/20/07	03/20/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/4/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017_WG031507_0001 - Water) - cont.									
Reporting Units: ug/l									
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07	
Methylene chloride	EPA 8260B	7C20023	0.95	1.0	ND	1	03/20/07	03/20/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C20023	3.5	5.0	ND	1	03/20/07	03/20/07	
n-Propylbenzene	EPA 8260B	7C20023	0.27	1.0	**9.4**	1	03/20/07	03/20/07	
Styrene	EPA 8260B	7C20023	0.16	1.0	ND	1	03/20/07	03/20/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C20023	0.27	1.0	ND	1	03/20/07	03/20/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C20023	0.24	1.0	ND	1	03/20/07	03/20/07	
Tetrachloroethene	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07	
Tetrahydrofuran (THF)	EPA 8260B	7C20023	3.5	10	ND	1	03/20/07	03/20/07	
Toluene	EPA 8260B	7C20023	0.36	1.0	ND	1	03/20/07	03/20/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C20023	0.30	1.0	ND	1	03/20/07	03/20/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C20023	0.48	1.0	ND	1	03/20/07	03/20/07	
1,1,2-Trichloroethane	EPA 8260B	7C20023	0.30	1.0	ND	1	03/20/07	03/20/07	
1,1,1-Trichloroethane	EPA 8260B	7C20023	0.30	1.0	ND	1	03/20/07	03/20/07	
Trichloroethene	EPA 8260B	7C20023	0.26	1.0	ND	1	03/20/07	03/20/07	
Trichlorofluoromethane	EPA 8260B	7C20023	0.34	2.0	ND	1	03/20/07	03/20/07	
1,2,3-Trichloropropane	EPA 8260B	7C20023	0.40	1.0	ND	1	03/20/07	03/20/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C20023	0.23	1.0	**8.3**	1	03/20/07	03/20/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C20023	0.26	1.0	**2.5**	1	03/20/07	03/20/07	
Vinyl acetate	EPA 8260B	7C20023	1.7	6.0	ND	1	03/20/07	03/20/07	
Vinyl chloride	EPA 8260B	7C20023	0.30	0.50	ND	1	03/20/07	03/20/07	
Xylenes, Total	EPA 8260B	7C20023	0.90	1.0	**1.9**	1	03/20/07	03/20/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*111 %*				
Surrogate: Dibromofluoromethane (80-120%)					*107 %*				
Surrogate: Toluene-d8 (80-120%)					*107 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/26/07

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing	Project ID: Boeing C-1 Long Beach	
701 N. Parkcenter Drive	EM-2701	Sampled: 03/15/07
Santa Ana, CA 92705	Report Number: IQC1776	Received: 03/15/07
Attention: Mehmet Pehlivan		

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04RE1 (MW3017_WG031507_0001 - Water) - cont.									
Reporting Units: ug/l									
Acetone	EPA 8260B	7C22010	4.5	10	ND	1	03/22/07	03/22/07	
Surrogate: 4-Bromofluorobenzene (80-120%)					*100 %*				
Surrogate: Dibromofluoromethane (80-120%)					*96 %*				
Surrogate: Toluene-d8 (80-120%)					*98 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/24/07

LDC #: 16591B1
SDG #: IQC1776
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
Tier 3

Date: 4/25/07
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/15/07
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	SW	% RSD, r^2 ≥0.990
IV.	Continuing calibration	SW	
V.	Blanks	SW	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	MW301B_WG031507_0001
VIII.	Laboratory control samples	SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	not reported
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	1, 2, 3 MW3017-WG031507_0001	11	1 TC20023-BLK1	21		31	
2	~~MW3017-WG031507_0001MS~~	12	2 TC22010-BLK1	22		32	
3	~~MW3017-WG031507_0001MSD~~	13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

DC #: 16591 B1
SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Reviewer: RJ
2nd Reviewer: N

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?		✓		
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		✓		
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 16591B1
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within + 30 seconds of the associated calibration standard?	✓			
XI. Target compound identification				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	S. Trichloroethene	KK. Trichlorofluoromethane	CCC. tert-Butylbenzene	UUU. 1,2-Dichlorotetrafluoroethane
B. Bromomethane	T. Dibromochloromethane	LL. Methyl-tert-butyl ether	DDD. 1,2,4-Trimethylbenzene	VVV. 4-Ethyltoluene
C. Vinyl chorlde**	U. 1,1,2-Trichloroethane	MM. 1,2-Dibromo-3-chloropropane	EEE. sec-Butylbenzene	WWW. Ethanol
D. Chloroethane	V. Benzene	NN. Methyl ethyl ketone	FFF. 1,3-Dichlorobenzene	XXX. Di-isopropyl ether
E. Methylene chloride	W. trans-1,3-Dichloropropene	OO. 2,2-Dichloropropane	GGG. p-Isopropyltoluene	YYY. tert-Butanol
F. Acetone	X. Bromoform*	PP. Bromochloromethane	HHH. 1,4-Dichlorobenzene	ZZZ. tert-Butyl alcohol
G. Carbon disulfide	Y. 4-Methyl-2-pentanone	QQ. 1,1-Dichloropropene	III. n-Butylbenzene	AAAA. Ethyl tert-butyl ether
H. 1,1-Dichloroethene**	Z. 2-Hexanone	RR. Dibromomethane	JJJ. 1,2-Dichlorobenzene	BBBB. tert-Amyl methyl ether
I. 1,1-Dichloroethane*	AA. Tetrachloroethene	SS. 1,3-Dichloropropane	KKK. 1,2,4-Trichlorobenzene	CCCC.1-Chlorohexane
J. 1,2-Dichloroethene, total	BB. 1,1,2,2-Tetrachloroethane*	TT. 1,2-Dibromoethane	LLL. Hexachlorobutadiene	DDDD. Isopropyl alcohol
K. Chloroform**	CC. Toluene**	UU. 1,1,1,2-Tetrachloroethane	MMM. Naphthalene	EEEE. Acetonitrile
L. 1,2-Dichloroethane	DD. Chlorobenzene*	VV. Isopropylbenzene	NNN. 1,2,3-Trichlorobenzene	FFFF. Acrolein
M. 2-Butanone	EE. Ethylbenzene**	WW. Bromobenzene	OOO. 1,3,5-Trichlorobenzene	GGGG. Acrylonitrile
N. 1,1,1-Trichloroethane	FF. Styrene	XX. 1,2,3-Trichloropropane	PPP. trans-1,2-Dichloroethene	HHHH. 1,4-Dioxane
O. Carbon tetrachloride	GG. Xylenes, total	YY. n-Propylbenzene	QQQ. cis-1,2-Dichloroethene	IIII. Isobutyl alcohol
P. Bromodichloromethane	HH. Vinyl acetate	ZZ. 2-Chlorotoluene	RRR. m,p-Xylenes	JJJJ. Methacrylonitrile
Q. 1,2-Dichloropropane**	II. 2-Chloroethylvinyl ether	AAA. 1,3,5-Trimethylbenzene	SSS. o-Xylene	KKKK. Propionitrile
R. cis-1,3-Dichloropropene	JJ. Dichlorodifluoromethane	BBB. 4-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	LLLL.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 16591B)
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- (Y) N N/A — Did the laboratory perform a 5 point calibration prior to sample analysis?
- (Y) N N/A — Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?
- (Y) N N/A — Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?________
- (Y) N N/A — Did the initial calibration meet the acceptance criteria?
- Y (N) N/A — Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %RSD (Limit: ≤30.0%)	Finding RRF (Limit: ≥0.05)	Associated Samples	Qualifications
	2/28/07	ICAL	M		0.037	All ~~FBlk~~	J/UJ/A
						+ 7C20023-BK1	

INICAL.1SB

LDC #: 16591B)
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: B
2nd Reviewer: R

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Y N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?

Y (N) N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	3/20/07 6:19PM	ccv	M		0.040	All + ~~BK~~ 7C20023-BLK1	J/UJ/A

CONCAL.1SB

LDC #: 16591B1
SDG #: F6C1776

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a method blank associated with every sample in this SDG?
Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
Y (N) N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 3/20/07
Conc. units: ug/L
Associated Samples: #1 (ND)

Compound	Blank ID	Sample Identification								
	7C20023-BLK1									
~~Methylene chloride~~ Tetrahydrofuran	8.39									
~~Acetone~~										
CRQL										

Blank analysis date:
Conc. units:
Associated Samples:

Compound	Blank ID	Sample Identification								
Methylene chloride										
Acetone										
CRQL										

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 16591B1
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		MW 301B-WG031587- 0001	III	156 (65-135)	151 (65-135)	( )	none	no qual
			MM	151 (45-145)	151 (45-145)	( )	↓	↓
			JJ	160 (25-155)	160 (25-155)	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
H.	1,1-Dichloroethene	59-172%	≤ 22%	61-145%	≤ 14%
S.	Trichloroethene	62-137%	≤ 24%	71-120%	≤ 14%
V.	Benzene	66-142%	≤ 21%	76-127%	≤ 11%
CC.	Toluene	59-139%	≤ 21%	76-125%	≤ 13%
DD.	Chlorobenzene	60-133%	≤ 21%	75-130%	≤ 13%

LDC #: 16591B
SDG #: F0C1776

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 2
Reviewer: B
2nd Reviewer: L

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

[✓ Y] N N/A Was a LCS required?
Y [✓ N] N/A Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		7C20023-BS1	M	160 (40-140)	( )	( )	7C20023-BLK1,	J/P det
			Z	151 (45-140)	( )	( )	1	|
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC #: 16591B1
SDG #: JGC1776

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Standard deviation of the RRFs
X = Mean of the RRFs

A_{is} = Area of associated internal standard
C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (10 std)	Recalculated RRF (10 std)	Reported Average RRF (initial)	Recalculated Average RRF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	2/28/07	Methylene chloride (1st internal standard)	0.436	0.436	0.474	0.474	7.78	7.78
			Trichlorethene (2nd internal standard)	0.314	0.314	0.331	0.331	5.92	5.92
			~~Toluene~~ Tetrachloroethane (3rd internal standard)	0.269	0.269	0.281	0.281	5.18	5.18
2			~~Methylene chloride~~ 1,2-DCB (1st internal standard)	1.306	1.306	1.314	1.314	10.24	10.24
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						
3	ICAL		~~Methylene chloride~~ Acetone (1st internal standard)	0.169	0.169	0.179	0.179	22.59	22.59
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						
4			Methylene chloride (1st internal standard)						
			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B
SDG #: fee cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	CCV	3/20/07	Methylene chloride (1st Internal standard)	0.474	0.492	0.492	3.8	3.8
	6:19PM		Trichlorethene (2nd Internal standard)	0.331	0.339	0.339	2.4	2.4
			~~Tetrachloroethene~~ Toluene (3rd Internal standard)	0.281	0.281	0.281	0	0
2			1,2-DCB ~~Methylene chloride~~ (1st Internal standard)	1.314	1.334	1.334	1.5	1.5
			Trichlorethene (2nd Internal standard)					
			Toluene (3rd Internal standard)					
3	CCV	3/22/07	~~Methylene chloride~~ Acetone (1st Internal standard)	0.179	0.207	0.207	15.6	15.6
	7:10 AM		~~Trichlorethene (2nd Internal standard)~~					
			~~Toluene (3rd Internal standard)~~					
4			Methylene chloride (1st Internal standard)					
			Trichlorethene (2nd Internal standard)					
			Toluene (3rd Internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer:
2nd reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	25.0	26.85	107	107	0
Bromofluorobenzene		27.67	111	111	
1,2-Dichloroethane-d4					
Dibromofluoromethane		26.84	107	107	

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

LDC #: 16591B
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration

RPD = | MSC - MSDC | * 2/(MSC + MSDC)

Where: MSC = Matrix spike percent recovery; MSDC = Matrix spike duplicate percent recovery

MS/MSD sample: MW3018_WG031507_0001

Compound	Spike Added (ug/L)		Sample Concentration (ug/L)	Spiked Sample Concentration (ug/L)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-----	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	25.0	25.0	ND	24.7	24.4	99	99	98	98	1	1
Trichloroethene	↓		ND	25.7	25.6	103	103	102	102	0	0
Benzene	25.0		0.94	27.9	27.7	108	108	107	107	1	1
Toluene			ND	27.0	26.9	108	109	108	108	0	0
Chlorobenzene		↓	ND	27.6	27.3	110	110	109	109	1	1

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B1
SDG #: file copy

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA

Where: SSC = Spiked sample concentration
SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD)

LCS = Laboraotry control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS ID: 7C20023-BS1

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalculated
1,1-Dichloroethene	25.0	NA	23.8	NA	95	95				
Trichloroethene			26.4		106	106				
Benzene			27.4		110	110				
Toluene			27.2		109	109				
Chlorobenzene			27.7		111	111	NA			

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

DC #: 16591B1
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: 5
2nd reviewer: R

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(DF)}{(A_{is})(RRF)(V_o)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
RRF	=	Relative response factor of the calibration standard.
V_o	=	Volume or weight of sample pruged in milliliters (ml) or grams (g).
Df	=	Dilution factor.
%S	=	Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. #1 . Benzene

Conc. = $\frac{(69826)(25)(\quad)(\quad)}{(144023)(1.069)(\quad)(\quad)}$

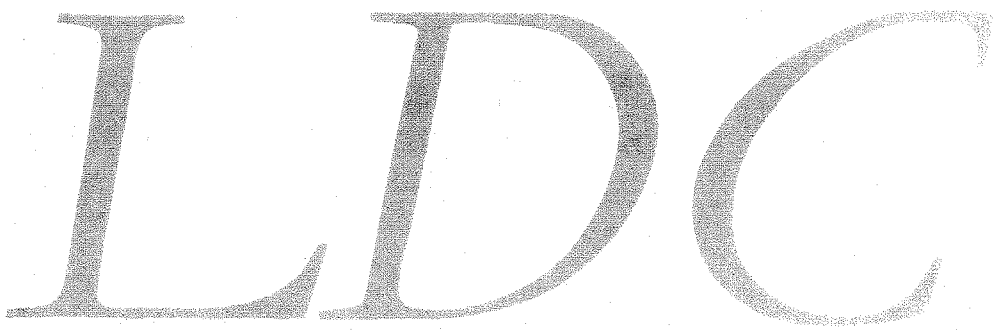
=

1.13 ug/L

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

Boeing Realty Corp., Bldg C-1 Long Beach
Data Validation Reports
LDC# 16591

Semivolatiles



Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date: March 15, 2007

LDC Report Date: April 30, 2007

Matrix: Water

Parameters: Semivolatiles

Validation Level: Tier 3

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC1776

Sample Identification

MW3017_WG031507_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990 .

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all semivolatile target compounds and system performance check compounds (SPCCs) were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values were greater than or equal to 0.05 .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
7C16066-LCS/D (All samples in SDG IQC1776)	1,3-Dichlorobenzene	29 (35-120)	-	34 (≤25)	J (all detects) UJ (all non-detects)	P
	1,4-Dichlorobenzene	34 (35-120)	-	27 (≤25)		
	1,2-Dichlorobenzene	35 (40-120)	-	31 (≤25)		
	Hexachlorobutadiene	37 (40-120)	-	32 (≤25)		
	Hexachloroethane	28 (35-120)	-	32 (≤25)		
	1,2,4-Trichlorobenzene	41 (45-120)	-	35 (≤20)		
	Acenaphthene	-	-	33 (≤20)		
	Acenaphthylene	-	-	30 (≤20)		
	Anthracene	-	-	23 (≤20)		
	Benzo(a)anthracene	-	-	24 (≤20)		
	Benzo(k)fluoranthene	-	-	23 (≤20)		
	Benzyl alcohol	-	-	33 (≤20)		
	Bis(2-chloroethoxy)methane	-	-	32 (≤20)		
	Bis(2-chloroethyl) ether	-	-	30 (≤20)		
	Bis(2-chloroisopropyl)ether	-	-	31 (≤20)		
	Bis(2-ethylhexyl)phthalate	-	-	25 (≤20)		
	4-Bromophenyl-phenyl ether	-	-	29 (≤25)		
	Butylbenzylphthalate	-	-	26 (≤20)		
	4-Chloroaniline	-	-	32 (≤25)		
	2-Chloronaphthalene	-	-	32 (≤20)		
	4-Chloro-3-methylphenol	-	-	33 (≤25)		
	2-Chlorophenol	-	-	30 (≤25)		
	4-Chlorophenyl-phenyl ether	-	-	33 (≤20)		
	Chrysene	-	-	28 (≤20)		
	Dibenzofuran	-	-	31 (≤20)		
	3,3'-Dichlorobenzidine	-	-	31 (≤25)		
	2,4-Dichlorophenol	-	-	33 (≤20)		
	2,4-Dimethylphenol	-	-	39 (≤25)		
	2,4-Dinitrophenol	-	-	26 (≤25)		
	2,4-Dinitrotoluene	-	-	24 (≤20)		
	2,6-Dinitrotoluene	-	-	30 (≤20)		
	Di-n-octylphthalate	-	-	30 (≤20)		
	Fluoranthene	-	-	21 (≤20)		
	Fluorene	-	-	34 (≤20)		
	Hexachlorobenzene	-	-	24 (≤20)		
	Hexachlorocyclopentadiene	-	-	70 (≤30)		
	Isophorone	-	-	32 (≤20)		
	2-Methylnaphthalene	-	-	31 (≤20)		
	2-Methylphenol	-	-	33 (≤20)		
	4-Methylphenol	-	-	30 (≤20)		
	Naphthalene	-	-	29 (≤20)		
	2-Nitroaniline	-	-	32 (≤20)		
	3-Nitroaniline	-	-	30 (≤25)		
	4-Nitroaniline	-	-	27 (≤20)		
	Nitrobenzene	-	-	34 (≤25)		
	2-Nitrophenol	-	-	37 (≤25)		
	N-Nitrosodiphenylamine	-	-	24 (≤20		
	N-Nitroso-di-n-propylamine	-	-	32 (≤20)		
	Phenanthrene	-	-	22 (≤20)		
	Phenol	-	-	29 (≤25)		
	2,4,5-Trichlorophenol	-	-	35 (≤30)		
	N-Nitrosodimethylamine	-	-	30 (≤20)		
	1,2-Diphenylhydrazine/Azobenzene	-	-	27 (≤25)		

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags have been summarized at the end of the report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach
Semivolatiles - Data Qualification Summary - SDG IQC1776

SDG	Sample	Compound	Flag	A or P	Reason
IQC1776	MW3017_WG031507_0001	1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene Hexachlorobutadiene Hexachloroethane 1,2,4-Trichlorobenzene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(k)fluoranthene Benzyl alcohol Bis(2-chloroethoxy)methane Bis(2-chloroethyl) ether Bis(2-chloroisopropyl)ether Bis(2-ethylhexyl)phthalate 4-Bromophenyl-phenyl ether Butylbenzylphthalate 4-Chloroaniline 2-Chloronaphthalene 4-Chloro-3-methylphenol 2-Chlorophenol 4-Chlorophenyl-phenyl ether Chrysene Dibenzofuran 3,3'-Dichlorobenzidine 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4-Dinitrotoluene 2,6-Dinitrotoluene Di-n-octylphthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorocyclopentadiene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitroaniline Nitrobenzene 2-Nitrophenol N-Nitrosodiphenylamine N-Nitroso-di-n-propylamine Phenanthrene Phenol 2,4,5-Trichlorophenol N-Nitrosodimethylamine 1,2-Diphenylhydrazine/Azobenzene	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)(RPD)

Boeing Realty Corp., Bldg C-1 Long Beach
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017_WG031507_0001 - Water)									
Reporting Units: ug/l									
Acenaphthene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Acenaphthylene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Aniline	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Anthracene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Benzidine	EPA 8270C	7C16066	8.1	19	ND	0.948	03/16/07	03/20/07	
Benzoic acid	EPA 8270C	7C16066	8.1	19	ND	0.948	03/16/07	03/20/07	
Benzo(a)anthracene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Benzo(b)fluoranthene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Benzo(k)fluoranthene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Benzo(g,h,i)perylene	EPA 8270C	7C16066	2.8	9.5	ND	0.948	03/16/07	03/20/07	
Benzo(a)pyrene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Benzyl alcohol	EPA 8270C	7C16066	2.4	19	ND UJ	0.948	03/16/07	03/20/07	
Bis(2-chloroethoxy)methane	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Bis(2-chloroethyl)ether	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Bis(2-chloroisopropyl)ether	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Bis(2-ethylhexyl)phthalate	EPA 8270C	7C16066	3.8	47	ND	0.948	03/16/07	03/20/07	
4-Bromophenyl phenyl ether	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Butyl benzyl phthalate	EPA 8270C	7C16066	3.8	19	ND	0.948	03/16/07	03/20/07	
4-Chloroaniline	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
2-Chloronaphthalene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
4-Chloro-3-methylphenol	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
2-Chlorophenol	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
4-Chlorophenyl phenyl ether	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Chrysene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Dibenz(a,h)anthracene	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
Dibenzofuran	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Di-n-butyl phthalate	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
1,3-Dichlorobenzene	EPA 8270C	7C16066	2.8	9.5	ND UJ	0.948	03/16/07	03/20/07	L2
1,4-Dichlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	L2
1,2-Dichlorobenzene	EPA 8270C	7C16066	2.8	9.5	ND	0.948	03/16/07	03/20/07	L2
3,3-Dichlorobenzidine	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
2,4-Dichlorophenol	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Diethyl phthalate	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
2,4-Dimethylphenol	EPA 8270C	7C16066	3.3	19	ND UJ	0.948	03/16/07	03/20/07	
Dimethyl phthalate	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
4,6-Dinitro-2-methylphenol	EPA 8270C	7C16066	3.8	19	ND	0.948	03/16/07	03/20/07	
2,4-Dinitrophenol	EPA 8270C	7C16066	4.3	19	ND UJ	0.948	03/16/07	03/20/07	
2,4-Dinitrotoluene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
2,6-Dinitrotoluene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Di-n-octyl phthalate	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
Fluoranthene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/4/2007

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017_WG031507_0001 - Water) - cont.									
Reporting Units: ug/l									
Fluorene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Hexachlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Hexachlorobutadiene	EPA 8270C	7C16066	3.3	9.5	ND	0.948	03/16/07	03/20/07	L2
Hexachlorocyclopentadiene	EPA 8270C	7C16066	4.7	19	ND	0.948	03/16/07	03/20/07	
Hexachloroethane	EPA 8270C	7C16066	2.8	9.5	ND	0.948	03/16/07	03/20/07	L2
Indeno(1,2,3-cd)pyrene	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
Isophorone	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
2-Methylnaphthalene	EPA 8270C	7C16066	1.9	9.5	13 J	0.948	03/16/07	03/20/07	
2-Methylphenol	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
4-Methylphenol	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Naphthalene	EPA 8270C	7C16066	2.4	9.5	16 J	0.948	03/16/07	03/20/07	
2-Nitroaniline	EPA 8270C	7C16066	1.9	19	ND UJ	0.948	03/16/07	03/20/07	
3-Nitroaniline	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
4-Nitroaniline	EPA 8270C	7C16066	2.4	19	ND	0.948	03/16/07	03/20/07	
Nitrobenzene	EPA 8270C	7C16066	2.4	19	ND	0.948	03/16/07	03/20/07	
2-Nitrophenol	EPA 8270C	7C16066	3.3	9.5	ND	0.948	03/16/07	03/20/07	
4-Nitrophenol	EPA 8270C	7C16066	5.2	19	ND	0.948	03/16/07	03/20/07	
N-Nitrosodiphenylamine	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
N-Nitroso-di-n-propylamine	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	C
Pentachlorophenol	EPA 8270C	7C16066	3.3	19	ND	0.948	03/16/07	03/20/07	
Phenanthrene	EPA 8270C	7C16066	1.9	9.5	ND UJ	0.948	03/16/07	03/20/07	
Phenol	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Pyrene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
1,2,4-Trichlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND UJ	0.948	03/16/07	03/20/07	L2
2,4,5-Trichlorophenol	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
2,4,6-Trichlorophenol	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
N-Nitrosodimethylamine	EPA 8270C	7C16066	2.4	19	ND UJ	0.948	03/16/07	03/20/07	
1,2-Diphenylhydrazine/Azobenzene	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	C
Surrogate: 2-Fluorophenol (30-120%)					*65 %*				
Surrogate: Phenol-d6 (35-120%)					*73 %*				
Surrogate: 2,4,6-Tribromophenol (40-120%)					*83 %*				
Surrogate: Nitrobenzene-d5 (40-120%)					*79 %*				
Surrogate: 2-Fluorobiphenyl (45-120%)					*67 %*				
Surrogate: Terphenyl-d14 (45-120%)					*71 %*				

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

LDC #: 16591B2
SDG #: IQC1776
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
Tier 3

Date: 4/26/07
Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/15/07
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	% RSD, r^2 ≥ 0.990
IV.	Continuing calibration	A	ICV ≤ 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	SW	LCS ID
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	
XII.	Compound quantitation/CRQLs	A	
XIII.	Tentatively identified compounds (TICs)	N	not reported
XIV.	System performance	A	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: water

1	MW3017-WG031507_0001	11	IC16066-BLK1	21		31		
2		12		22		32		
3		13		23		33		
4		14		24		34		
5		15		25		35		
6		16		26		36		
7		17		27		37		
8		18		28		38		
9		19		29		39		
10		20		30		40		

LDC #: 16591B2
SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/MS instrument performance check				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	✓			
Were all samples analyzed within the 12 hour clock criteria?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) > 0.05?	✓			
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	✓			
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	✓			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	✓			
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			

LDC #: 16591B2
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: B
2nd Reviewer: R

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?				
XI. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			✓	
Were relative intensities of the major ions within ± 20% between the sample and the reference spectra?			✓	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?			✓	
XIV. System performance				
System performance was found to be acceptable.	✓			
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.				
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XVII. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

A. Phenol**	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol**	III. Benzo(a)pyrene**
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol**	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene**	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol*	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene**	T. 4-Chloroaniline	II. 4-Nitrophenol*	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene**	JJ. Dibenzofuran	YY. Fluoranthene**	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol**	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene*	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine*	Y. 2,4,6-Trichlorophenol**	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT. Azobenzene
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)**	FFF. Di-n-octylphthalate**	UUU.
N. 2-Nitrophenol**	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 16371B1
SDG #: 1Q1776

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a LCS required?
Y N N/A Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		7C16066-LCS/D	D	29 (35-120)	( )	( )	All + B1K	J/UJ/P
			E	34 (35-120)	( )	( )		
			F	35 (40-120)	( )	( )		
			U	37 (40-120)	( )	( )		
			K	28 (35-120)	( )	( )		
			R	41 (45-120)	( )	( )		
				( )	( )	( )		
				( )	( )	(per attached for RPD limit		RPD's all J/UJ/P ≤ 20
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
Blank Analyzed: 03/19/2007 (7C16066-BLK1)											
Surrogate: Phenol-d6	*13.6*			*ug/l*	*20.0*		*68*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*13.2*			*ug/l*	*20.0*		*66*	*40-120*			
Surrogate: Nitrobenzene-d5	*5.90*			*ug/l*	*10.0*		*59*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*7.14*			*ug/l*	*10.0*		*71*	*45-120*			
Surrogate: Terphenyl-d14	*7.38*			*ug/l*	*10.0*		*74*	*45-120*			
LCS Analyzed: 03/19/2007 (7C16066-BS1)											**MNR1**
Acenaphthene	64.6	10	2.0	ug/l	100		65	55-120			
Acenaphthylene	72.4	10	2.0	ug/l	100		72	60-120			
Aniline	78.3	10	2.5	ug/l	100		78	40-120			
Anthracene	72.1	10	2.0	ug/l	100		72	60-120			
Benzidine	147	20	8.5	ug/l	100		147	25-160			
Benzoic acid	31.7	20	8.5	ug/l	100		32	25-120			
Benzo(a)anthracene	71.5	10	2.0	ug/l	100		72	60-120			
Benzo(b)fluoranthene	82.5	10	2.0	ug/l	100		82	55-125			
Benzo(k)fluoranthene	82.9	10	2.0	ug/l	100		83	50-125			
Benzo(g,h,i)perylene	98.0	10	3.0	ug/l	100		98	45-130			
Benzo(a)pyrene	88.8	10	2.0	ug/l	100		89	55-125			
Benzyl alcohol	61.3	20	2.5	ug/l	100		61	50-120			
Bis(2-chloroethoxy)methane	62.3	10	2.0	ug/l	100		62	55-120			
Bis(2-chloroethyl)ether	54.6	10	2.5	ug/l	100		55	50-120			
Bis(2-chloroisopropyl)ether	55.2	10	2.5	ug/l	100		55	45-120			
Bis(2-ethylhexyl)phthalate	69.2	50	4.0	ug/l	100		69	60-125			
4-Bromophenyl phenyl ether	66.5	10	2.5	ug/l	100		66	55-120			
Butyl benzyl phthalate	68.1	20	4.0	ug/l	100		68	50-125			
4-Chloroaniline	63.7	10	2.0	ug/l	100		64	50-120			
2-Chloronaphthalene	61.8	10	2.0	ug/l	100		62	55-120			
4-Chloro-3-methylphenol	61.4	20	2.0	ug/l	100		61	55-120			
2-Chlorophenol	57.6	10	2.0	ug/l	100		58	45-120			
4-Chlorophenyl phenyl ether	63.9	10	2.0	ug/l	100		64	60-120			
Chrysene	69.5	10	2.0	ug/l	100		70	60-120			
Dibenz(a,h)anthracene	94.5	20	3.0	ug/l	100		94	50-135			
Dibenzofuran	64.0	10	2.0	ug/l	100		64	60-120			
Di-n-butyl phthalate	75.7	20	2.0	ug/l	100		76	55-125			
1,3-Dichlorobenzene	29.3	10	3.0	ug/l	100		29	35-120	D		*L2*
1,4-Dichlorobenzene	34.4	10	2.5	ug/l	100		34	35-120	E		*L2*

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
LCS Analyzed: 03/19/2007 (7C16066-BS1)											MNR1
1,2-Dichlorobenzene	35.3	10	3.0	ug/l	100		35	40-120	F		L2
3,3-Dichlorobenzidine	68.8	20	3.0	ug/l	100		69	50-135			
2,4-Dichlorophenol	56.7	10	2.0	ug/l	100		57	50-120			
Diethyl phthalate	69.3	10	2.0	ug/l	100		69	50-120			
2,4-Dimethylphenol	45.8	20	3.5	ug/l	100		46	35-120			
Dimethyl phthalate	60.9	10	2.0	ug/l	100		61	25-120			
4,6-Dinitro-2-methylphenol	71.9	20	4.0	ug/l	100		72	40-120			
2,4-Dinitrophenol	68.7	20	4.5	ug/l	100		69	35-120			
2,4-Dinitrotoluene	74.4	10	2.0	ug/l	100		74	60-120			
2,6-Dinitrotoluene	67.9	10	2.0	ug/l	100		68	60-120			
Di-n-octyl phthalate	70.1	20	2.0	ug/l	100		70	60-130			
Fluoranthene	76.3	10	2.0	ug/l	100		76	55-120			
Fluorene	63.5	10	2.0	ug/l	100		64	60-120			
Hexachlorobenzene	69.1	10	2.5	ug/l	100		69	55-120			
Hexachlorobutadiene	36.9	10	3.5	ug/l	100		37	40-120	U		L2
Hexachlorocyclopentadiene	34.2	20	5.0	ug/l	100		34	20-120			
Hexachloroethane	27.9	10	3.0	ug/l	100		28	35-120	K		L2
Indeno(1,2,3-cd)pyrene	95.4	20	3.0	ug/l	100		95	45-135			
Isophorone	52.4	10	2.0	ug/l	100		52	50-120			
2-Methylnaphthalene	58.0	10	2.0	ug/l	100		58	50-120			
2-Methylphenol	59.6	10	2.0	ug/l	100		60	50-120			
4-Methylphenol	63.4	10	2.0	ug/l	100		63	45-120			
Naphthalene	55.7	10	2.5	ug/l	100		56	50-120			
2-Nitroaniline	66.6	20	2.0	ug/l	100		67	60-120			
3-Nitroaniline	82.9	20	2.0	ug/l	100		83	55-120			
4-Nitroaniline	85.9	20	2.5	ug/l	100		86	50-125			
Nitrobenzene	52.0	20	2.5	ug/l	100		52	50-120			
2-Nitrophenol	58.6	10	3.5	ug/l	100		59	45-120			
4-Nitrophenol	68.6	20	5.5	ug/l	100		69	40-120			
N-Nitrosodiphenylamine	64.2	10	2.0	ug/l	100		64	55-120			
N-Nitroso-di-n-propylamine	54.1	10	2.5	ug/l	100		54	45-120			
Pentachlorophenol	83.2	20	3.5	ug/l	100		83	45-125			
Phenanthrene	70.3	10	2.0	ug/l	100		70	60-120			
Phenol	58.2	10	2.0	ug/l	100		58	45-120			
Pyrene	67.8	10	2.0	ug/l	100		68	50-125			

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
LCS Analyzed: 03/19/2007 (7C16066-BS1)											MNR1
1,2,4-Trichlorobenzene	40.7	10	2.5	ug/l	100		41	45-120	R		L2
2,4,5-Trichlorophenol	61.9	20	3.0	ug/l	100		62	50-120			
2,4,6-Trichlorophenol	63.2	20	3.0	ug/l	100		63	50-120			
N-Nitrosodimethylamine	51.3	20	2.5	ug/l	100		51	40-120			
1,2-Diphenylhydrazine/Azobenzene	64.0	20	2.0	ug/l	100		64	55-120			
Surrogate: 2-Fluorophenol	*10.9*			*ug/l*	*20.0*		*54*	*30-120*			
Surrogate: Phenol-d6	*11.4*			*ug/l*	*20.0*		*57*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*14.1*			*ug/l*	*20.0*		*70*	*40-120*			
Surrogate: Nitrobenzene-d5	*5.54*			*ug/l*	*10.0*		*55*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*6.42*			*ug/l*	*10.0*		*64*	*45-120*			
Surrogate: Terphenyl-d14	*6.96*			*ug/l*	*10.0*		*70*	*45-120*			
LCS Dup Analyzed: 03/19/2007 (7C16066-BSD1)											
Acenaphthene	90.2	10	2.0	ug/l	100		90	55-120	33	20 GG	R-7
Acenaphthylene	98.1	10	2.0	ug/l	100		98	60-120	30	20 DD	R-7
Aniline	82.9	10	2.5	ug/l	100		83	40-120	6	30	
Anthracene	90.8	10	2.0	ug/l	100		91	60-120	23	20 VV	R-7
Benzidine	149	20	8.5	ug/l	100		149	25-160	1	35	
Benzoic acid	32.5	20	8.5	ug/l	100		32	25-120	2	30	
Benzo(a)anthracene	90.6	10	2.0	ug/l	100		91	60-120	24	20 CCC	R-7
Benzo(b)fluoranthene	99.2	10	2.0	ug/l	100		99	55-125	18	25	
Benzo(k)fluoranthene	104	10	2.0	ug/l	100		104	50-125	23	20 HHH	R-7
Benzo(g,h,i)perylene	117	10	3.0	ug/l	100		117	45-130	18	25	
Benzo(a)pyrene	108	10	2.0	ug/l	100		108	55-125	20	25	
Benzyl alcohol	85.6	20	2.5	ug/l	100		86	50-120	33	20 QQQ	R-7
Bis(2-chloroethoxy)methane	85.8	10	2.0	ug/l	100		86	55-120	32	20 P	R-7
Bis(2-chloroethyl)ether	74.2	10	2.5	ug/l	100		74	50-120	30	20 B	R-7
Bis(2-chloroisopropyl)ether	75.8	10	2.5	ug/l	100		76	45-120	31	20 MMM	R-7
Bis(2-ethylhexyl)phthalate	89.2	50	4.0	ug/l	100		89	60-125	25	20 EEE	R-7
4-Bromophenyl phenyl ether	89.2	10	2.5	ug/l	100		89	55-120	29	25 RR	R-7
Butyl benzyl phthalate	88.2	20	4.0	ug/l	100		88	50-125	26	20 AAA	R-7
4-Chloroaniline	88.2	10	2.0	ug/l	100		88	50-120	32	25 T	R-7
2-Chloronaphthalene	85.1	10	2.0	ug/l	100		85	55-120	32	20 AA	R-7
4-Chloro-3-methylphenol	85.6	20	2.0	ug/l	100		86	55-120	33	25 V	R-7
2-Chlorophenol	78.1	10	2.0	ug/l	100		78	45-120	30	25 C	R-7
4-Chlorophenyl phenyl ether	89.0	10	2.0	ug/l	100		89	60-120	33	20 MM	R-7

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
LCS Dup Analyzed: 03/19/2007 (7C16066-BSD1)											
Chrysene	92.3	10	2.0	ug/l	100		92	60-120	28	20 DDD	R-7
Dibenz(a,h)anthracene	113	20	3.0	ug/l	100		113	50-135	18	25	
Dibenzofuran	87.7	10	2.0	ug/l	100		88	60-120	31	20 JJ	R-7
Di-n-butyl phthalate	90.8	20	2.0	ug/l	100		91	55-125	18	20	
1,3-Dichlorobenzene	41.4	10	3.0	ug/l	100		41	35-120	34	25 D-	R-2
1,4-Dichlorobenzene	45.3	10	2.5	ug/l	100		45	35-120	27	25 E-	R-2
1,2-Dichlorobenzene	48.2	10	3.0	ug/l	100		48	40-120	31	25 F-	R-2
3,3-Dichlorobenzidine	93.8	20	3.0	ug/l	100		94	50-135	31	25 BBB	R-7
2,4-Dichlorophenol	79.1	10	2.0	ug/l	100		79	50-120	33	20 QQ	R-7
Diethyl phthalate	88.0	10	2.0	ug/l	100		88	50-120	24	30	
2,4-Dimethylphenol	67.9	20	3.5	ug/l	100		68	35-120	39	25 O	R-7
Dimethyl phthalate	79.9	10	2.0	ug/l	100		80	25-120	27	30	
4,6-Dinitro-2-methylphenol	89.2	20	4.0	ug/l	100		89	40-120	21	25	
2,4-Dinitrophenol	89.6	20	4.5	ug/l	100		90	35-120	26	25 HH	R-7
2,4-Dinitrotoluene	94.7	10	2.0	ug/l	100		95	60-120	24	20 KK	R-7
2,6-Dinitrotoluene	91.8	10	2.0	ug/l	100		92	60-120	30	20 EE	R-7
Di-n-octyl phthalate	94.5	20	2.0	ug/l	100		94	60-130	30	20 FFF	R-7
Fluoranthene	94.1	10	2.0	ug/l	100		94	55-120	21	20 YY	R-7
Fluorene	89.1	10	2.0	ug/l	100		89	60-120	34	20 NN	R-7
Hexachlorobenzene	88.1	10	2.5	ug/l	100		88	55-120	24	20 SS	R-7
Hexachlorobutadiene	50.8	10	3.5	ug/l	100		51	40-120	32	25 U-	R-2
Hexachlorocyclopentadiene	71.2	20	5.0	ug/l	100		71	20-120	70	30 X	R-7
Hexachloroethane	38.6	10	3.0	ug/l	100		39	35-120	32	25 K-	R-2
Indeno(1,2,3-cd)pyrene	113	20	3.0	ug/l	100		113	45-135	17	25	
Isophorone	72.0	10	2.0	ug/l	100		72	50-120	32	20 M	R-7
2-Methylnaphthalene	79.6	10	2.0	ug/l	100		80	50-120	31	20 W	R-7
2-Methylphenol	82.8	10	2.0	ug/l	100		83	50-120	33	20 G	R-7
4-Methylphenol	85.5	10	2.0	ug/l	100		86	45-120	30	20 I	R-7
Naphthalene	74.9	10	2.5	ug/l	100		75	50-120	29	20 S	R-7
2-Nitroaniline	92.3	20	2.0	ug/l	100		92	60-120	32	20 BB	R-7
3-Nitroaniline	112	20	2.0	ug/l	100		112	55-120	30	25 FF	R-7
4-Nitroaniline	113	20	2.5	ug/l	100		113	50-125	27	20 OO	R-7
Nitrobenzene	73.2	20	2.5	ug/l	100		73	50-120	34	25 L	R-7
2-Nitrophenol	85.2	10	3.5	ug/l	100		85	45-120	37	25 N	R-7
4-Nitrophenol	90.2	20	5.5	ug/l	100		90	40-120	34	30	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

METHOD BLANK/QC DATA

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07											
LCS Dup Analyzed: 03/19/2007 (7C16066-BSD1)											
N-Nitrosodiphenylamine	81.3	10	2.0	ug/l	100		81	55-120	24	20 QQ	R-7
N-Nitroso-di-n-propylamine	74.7	10	2.5	ug/l	100		75	45-120	32	20 J	R-7
Pentachlorophenol	106	20	3.5	ug/l	100		106	45-125	24	25	
Phenanthrene	87.3	10	2.0	ug/l	100		87	60-120	22	20 UU	R-7
Phenol	78.3	10	2.0	ug/l	100		78	45-120	29	25 A	R-7
Pyrene	83.6	10	2.0	ug/l	100		84	50-125	21	25	
1,2,4-Trichlorobenzene	58.0	10	2.5	ug/l	100		58	45-120	35	20 R—	R-2
2,4,5-Trichlorophenol	88.2	20	3.0	ug/l	100		88	50-120	35	30 T	R-7
2,4,6-Trichlorophenol	84.6	20	3.0	ug/l	100		85	50-120	29	30	
N-Nitrosodimethylamine	69.6	20	2.5	ug/l	100		70	40-120	30	20 ~~QQQ~~	R-7
1,2-Diphenylhydrazine/Azobenzene	84.3	20	2.0	ug/l	100		84	55-120	27	25	R-7
Surrogate: 2-Fluorophenol	*14.9*			*ug/l*	*20.0*		*74*	*30-120*			
Surrogate: Phenol-d6	*15.9*			*ug/l*	*20.0*		*80*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*19.0*			*ug/l*	*20.0*		*95*	*40-120*			
Surrogate: Nitrobenzene-d5	*7.64*			*ug/l*	*10.0*		*76*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*8.82*			*ug/l*	*10.0*		*88*	*45-120*			
Surrogate: Terphenyl-d14	*8.86*			*ug/l*	*10.0*		*89*	*45-120*			

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

LDC #: 4125 K1V2
SDG #: all cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: R
2nd Reviewer: A

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$RRF = (A_x)(C_{is})/(A_{is})(C_x)$
average RRF = sum of the RRFs/number of standards
%RSD = 100 * (S/X)

A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard
S = Standard deviation of the RRFs, X = Mean of the RRFs

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported RRF (80 std)	Recalculated RRF (80 std)	Reported Average RRF (Initial)	Recalculated Average RRF (Initial)	Reported %RSD	Recalculated %RSD
1	ICAL-8	3/3/07	Phenol (1st Internal standard)	2.111	2.11	2.125	2.125	4.01	4.01
			Naphthalene (2nd internal standard)	1.036	1.036	1.030	1.030	5.90	5.90
			Fluorene (3rd internal standard)	1.321	1.321	1.268	1.268	9.44	9.44
			~~Pentachlorophenol~~ Anthracene (4th Internal standard)	~~1.180~~ 1.093	1.093	~~1.055~~ 1.059	1.059	7.16	7.16
			Bis(2-ethylhexyl)phthalate (5th Internal standard)	1.396	1.396	1.308	1.308	3.67	3.67
			Benzo(a)pyrene (6th Internal standard)	1.205	1.205	1.192	1.192	8.89	8.89
2			Phenol (1st internal standard)						
			Naphthalene (2nd Internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
3			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B2
SDG #: cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of
Reviewer: AJ
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
$RRF = (A_x)(C_{is})/(A_{is})(C_x)$

Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
A_x = Area of compound, A_{is} = Area of associated internal standard
C_x = Concentration of compound, C_{is} = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported RRF (CC)	Recalculated RRF (CC)	Reported %D	Recalculated %D
1	ccv	3/20/07	Phenol (1st internal standard)	2.125	2.072	2.072	2.5	2.5
			Naphthalene (2nd internal standard)	1.030	1.092	1.092	6.0	6.0
			Fluorene (3rd internal standard)	1.268	1.323	1.323	4.3	4.3
			~~Anthracene~~ Pentachlorophenol (4th internal standard)	1.059	1.117	1.117	5.5	5.5
			Bis(2-ethylhexyl)phthalate (5th internal standard)	1.308	1.392	1.392	6.4	6.4
			Benzo(a)pyrene (6th internal standard)	1.192	1.192	1.192	0.0	0.0
2			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
3			Phenol (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B2
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: A
2nd reviewer: N

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	5	3.95	79	79	0
2-Fluorobiphenyl	↓	3.37	67	67	↓
Terphenyl-d14	↓	3.56	71	71	↓
Phenol-d5	10	7.29	73	73	↓
2-Fluorophenol	↓	6.49	65	65	↓
2,4,6-Tribromophenol	↓	8.30	83	83	↓
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14					
Phenol-d5					
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

LDC #: 16591B2
SDG #: pw cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration, SA = Spike added

RPD = | LCS - LCSD | * 2/(LCS + LCSD) LCS = Laboratory control sample percent recovery LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: 7C160066-LCS1D

Compound	Spike Added (ng/L)		Spike Concentration (ng/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc	Reported	Recalc	Reported	Recalculated
Phenol	100		58.2	78.3	58	58	78	78	29	29
N-Nitroso-di-n-propylamine			54.1	74.7	54	54	75	75	32	32
4-Chloro-3-methylphenol			61.4	85.6	61	61	86	86	33	33
Acenaphthene			64.6	90.2	65	65	90	90	33	33
Pentachlorophenol			83.2	106	83	83	106	106	24	24
Pyrene			67.8	83.6	68	60	84	84	21	21

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 165918Z
SDG #: all covered

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer:
2nd reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. FB1 . Naphthalene

Conc. = $\frac{(365945)(40)(2.)(1000)(\quad)}{(165^{(}4509)(1.030)(1055^{*})(\quad)}$

= 16 ug/L

#	Sample ID	Compound	Reported Concentration ( )	Calculated Concentration ( )	Qualification

RECALC.2S

Boeing Realty Corp., Bldg C-1 Long Beach
Data Validation Reports
LDC# 16591

Hexavalent Chromium

LDC

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date: March 8, 2007

LDC Report Date: April 26, 2007

Matrix: Water

Parameters: Hexavalent chromium

Validation Level: Tier 1, 2, & 3

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC0980

Sample Identification

MW3009_WG030807_0001
MW3012_WG030807_0001*
MW3012_WG030807_0002**

*Indicates sample underwent Tier 2 review
**Indicates sample underwent Tier 3 review
All other samples underwent Tier 1 review

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7196A for Hexavalent chromium.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Samples indicated by a double asterisk on the front cover underwent a Tier 3 review. A Tier 2 or Tier 1 review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Tier 2 or Tier 1 criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

Initial calibration data were not reviewed for Tier I.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

Calibration verification data were not reviewed for Tier I.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

All sample result verifications were acceptable for samples on which a Tier 3 review was performed. Raw data were not evaluated for the samples reviewed by Tier 2 or Tier 1 criteria.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD
	MW3012_WG030807_0001*	MW3012_WG030807_0002**	
Hexavalent chromium	1.3	0.98	28

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach
Hexavalent chromium - Data Qualification Summary - SDG IQC0980

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-1 Long Beach
Hexavalent chromium - Laboratory Blank Data Qualification Summary - SDG IQC0980

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701-05
Report Number: IQC0980

Sampled: 03/08/07
Received: 03/08/07

INORGANICS

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC0980-01 (TB_TAIT030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	ND	1	03/08/07	03/08/07	
Sample ID: IQC0980-02 (MW3009_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	ND	1	03/08/07	03/08/07	
Sample ID: IQC0980-03 (MW3016_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**11**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-04 (MW3015_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**49**	1	03/08/07	03/08/07	
Sample ID: IQC0980-05 (MW3014_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**13**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-06 (MW3013_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**3.4**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-07 (MW3012_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**1.3**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-08 (MW3012_WG030807_0002 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**0.98**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-09 (MW3011_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	**4.7**	1	03/08/07	03/08/07	J
Sample ID: IQC0980-10 (MW3010_WG030807_0001 - Water)					**Sampled: 03/08/07**				
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	3.2	120	**140**	5	03/08/07	03/08/07	

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

4/4/2007

LDC #: 16591A6
SDG #: IQC0980
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
Tier 1/2/3

Date: 4/21/07
Page: 1 of 1
Reviewer: W
2nd Reviewer: A

METHOD: Hexavalent Chromium (EPA SW846 Method 7196A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/8/07
IIa.	Initial calibration	A	Not reviewed for Tier I validation.
IIb.	Calibration verification	A	Not reviewed for Tier I validation.
III.	Blanks	A	
IVa.	Matrix Spike/(Matrix Spike) Duplicates	A	MS/MSD IQC0980-01
IVb.	Laboratory control samples	A	LCS
V.	Sample result verification	A	Not reviewed for Tier I or Tier II validation.
VI.	Overall assessment of data	A	
VII.	Field duplicates	SW	(2,3)
VIII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: * Indicates sample underwent Tier II validation, ** Indicates sample underwent Tier III validation

1	MW3009_WG030807_0001	11		21		31	
2	MW3012_WG030807_0001*	12		22		32	
3	MW3012_WG030807_0002**	13		23		33	
4	MB	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 16591A6
SDG #: See cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: MM
2nd Reviewer: M

Method: Inorganics (EPA Method 7196A)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix Spike/Matrix Spike Duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were < 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaytzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 16891K6
SDG #: see cover

VALIDATION FINDINGS CHECKLIST

Page: 1 of 1
Reviewer: MY
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
X. Field blanks				
Field blanks were identified in this SDG.		✓		
Target analytes were detected in the field blanks.			✓	

LDC#: 16591A6
SDG#: IQC0980

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [signature]
2nd Reviewer: [signature]

Inorganics, Method 7196A

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (ug/L)		RPD	
	2	3		
Cr (VI)	1.3	0.98	28	

V:\FIELD DUPLICATES\FD_inorganic\16591A6.wpd

LDC #: 16891A6
SDG #: 1 en con

VALIDATION FINDINGS WORKSHEET
Initial and Continuing Calibration Calculation Verification

Reviewer: MY
2nd Reviewer: M

METHOD: Inorganics, Method 7196A

The correlation coefficient (r) for the calibration of CV6+ was recalculated. Calibration date: 3/8/07

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found x 100 / True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of Analysis	Analyte		conc. (mg/L) (units)	AA (units)	Recalculated r or %R	Reported r or %R	Acceptable (Y/N)
Initial calibration		Blank	0	0			
Calibration verification		Standard 1	0.01	0.007			
		Standard 2	0.025	0.023			
		Standard 3	0.1	0.083			
	CV6+	Standard 4	0.5	0.414	r=0.999997	r=0.99998	Y
		Standard 5					
		Standard 6					
		Standard 7					
Calibration verification ICV	CV6+	0.1	0.101		101	NR	Y
Calibration verification CCV	CV6+	0.3	0.310		103	NR	Y
Calibration verification							

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591A6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: MM
2nd Reviewer: [illegible]

METHOD: Inorganics, Method 9196A

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$$\%R = \frac{Found}{True} \times 100$$ Where,

Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).

True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$ Where,

S = Original sample concentration

D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	9196	101	100	101	101	Y
IQC6980-01	Matrix spike sample		(SSR-SR) 305	300	102	102	
	Duplicate sample		304	305	0	0	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.6

LDC #: 16819A4
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: MM
2nd reviewer: N

METHOD: Inorganics, Method 7196A

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Have results been reported and calculated correctly?
(Y) N N/A Are results within the calibrated range of the instruments?
(Y) N N/A Are all detection limits below the CRQL?

Compound (analyte) results for 3 reported with a positive detect were recalculated and verified using the following equation:

Concentration =

$C_{Cr^{6+}} = \frac{Abs - 0.000292}{0.827}$

Recalculation:

$C_{Cr^{6+}} = \frac{0.001 - 0.000292}{0.827} = 0.000086\ mg/L$

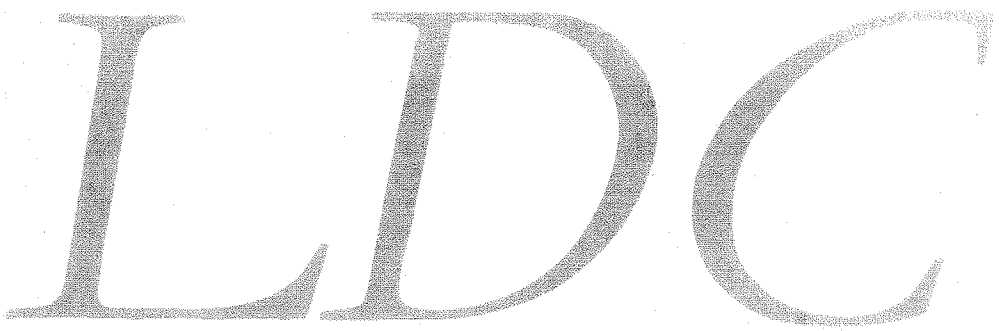
$= 0.86\ ug/L$

#	Sample ID	Analyte	Reported Concentration (ug/L)	Calculated Concentration (ug/L)	Acceptable (Y/N)
1	3	Cr^{6+}	0.98	0.86	Y

Note: carry 3 decimal points on print out for Abs.

Boeing Realty Corp., Bldg C-1 Long Beach
Data Validation Reports
LDC# 16591

TPH as Extractables



Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date: March 15, 2007

LDC Report Date: April 30, 2007

Matrix: Water

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Tier 3

Laboratory: TestAmerica

Sample Delivery Group (SDG): IQC1776

Sample Identification

MW3017_WG031507_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report if data has been summarized.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-1 Long Beach
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive
Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach
EM-2701
Report Number: IQC1776

Sampled: 03/15/07
Received: 03/15/07

HYDROCARBON DISTRIBUTION (EPA 3510C/8015 Mod.)

Analyte	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	% of Total	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017_WG031507_0001 - Water)									
Reporting Units: mg/l									
EFH (C6 - C44)	7C22062	0.094	0.47	**4.9**	1	100	3/22/2007	3/22/2007	
EFH (C6 - C7)	7C22062	0.094	0.094	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C8 - C9)	7C22062	0.094	0.094	**0.15**	1	3	3/22/2007	3/22/2007	
EFH (C10 - C11)	7C22062	0.094	0.094	**0.79**	1	16	3/22/2007	3/22/2007	
EFH (C12 - C13)	7C22062	0.094	0.094	**1.1**	1	22	3/22/2007	3/22/2007	
EFH (C14 - C15)	7C22062	0.094	0.094	**1.4**	1	29	3/22/2007	3/22/2007	
EFH (C16 - C17)	7C22062	0.094	0.094	**0.93**	1	19	3/22/2007	3/22/2007	
EFH (C18 - C19)	7C22062	0.094	0.094	**0.29**	1	6	3/22/2007	3/22/2007	
EFH (C20 - C23)	7C22062	0.042	0.042	**0.084**	1	2	3/22/2007	3/22/2007	
EFH (C24 - C27)	7C22062	0.042	0.042	**0.045**	1	1	3/22/2007	3/22/2007	
EFH (C28 - C31)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C32 - C35)	7C22062	0.094	0.094	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C36 - C39)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C40 - C44)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
Surrogate: n-Octacosane (40-125%)				*97 %*					

TestAmerica - Irvine, CA
Nicholas Marz
Project Manager

3/14/2007

LDC #: 16591B8
SDG #: IQC1776
Laboratory: Test America

VALIDATION COMPLETENESS WORKSHEET
EPA Region 1 - Tier 3

Date: 4/25/07
Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC TPH as Extractables (EPA SW 846 Method 8015)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 3/15/07
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IVa.	Surrogate recovery	A	
IVb.	Matrix spike/Matrix spike duplicates	N	client specified
IVc.	Laboratory control samples	A	LCS/D
V.	Target compound identification	A	
VI.	Compound Quantitation and CRQLs	A	
VII.	System Performance	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: water

1	MW3017-WG031507_0001	11	IC22062-BLK1	21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 16591138
SDG #: per cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: ____ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?		✓		
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ____%D or ____%R	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 15%.0 or percent recoveries 85-115%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓	✓	
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			✓	
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			

LDC #: 16591B8
SDG #: pw cover

VALIDATION FINDINGS CHECKLIST

Reviewer: [illegible]
2nd Reviewer: [illegible]

Validation Area	Yes	No	NA	Findings/Comments
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Were field duplicate pairs identified in this SDG?		✓		
Were target compounds idetected in the field duplicates?			✓	
XV. Field blanks				
Were field blanks identified in this SDG?		✓		
Were target compounds detected in the field blanks?			✓	

LDC #: 16591B8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC ____

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C
average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

#	Standard ID	Calibration Date	Compound	Reported CF (750 std)	Recalculated CF (750 std)	Reported Average CF (initial)	Recalculated Average CF (initial)	Reported %RSD	Recalculated %RSD
1	ICAL	3/3/07	EFH	2873.4	2873.4	2787.17	2787.17	11.14	11.14
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %R	Recalculated %R
1	CCV	3/22/07 6:55	EFH	750	740.3494	74035	99	99
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 165918B
SDG #: see cover
METHOD: GC / HPLC

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: [illegible]
2nd reviewer: [illegible]

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: # 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
n-octacosane	not specified	100	97.4363	97	97	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 165918B8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: M
2nd Reviewer: A

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentration; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: 7C22062-BS1

Compound	Spike Added (mg/kg)		Sample Conc. (mg/kg)	Spike Sample Concentration (mg/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	---	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
EFH	1.0	1.0	0	0.931	0.806	93	93	81	81	14	14

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 16591B8
SDG #: per cover

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: __ GC __ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10% of the reported results?

Concentration= $\frac{(A)(Fv)(Df)}{(RF)(Vs \text{ or } Ws)(\%S/100)}$

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name EFH C_6-C_{44}

Concentration = $\frac{14562237.58 \quad (1)}{2787.17 \quad (1060)}$

= 4.9 mg/L

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

Attachment 1

LDC #16739 (Tait Environmenal Management, Inc. / Boeing Realty Corp., Bldg C-1 Long Beach)

LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (8260B)		Mn (6010B)		Diss. Gases (175)		Alk. (310.1)		NH_3 (350.3)		Cl,SO_4 $O\text{-}PO_4$ (300.0)		$NO_3\text{-}N$ $NO_2\text{-}N$ (300.0)		S= (376.2)		TOC (415.1)															
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	IQC1612	05/03/07	05/24/07	6	0	2	0	2	0	2	0	2	0	2	0	2	0	-	-	2	0	Tier I													
B	IQC2470	05/03/07	05/24/07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	Tier I													
B	IQC2470	05/03/07	05/24/07	4	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0														
C	IQC2895	05/03/07	05/24/07	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0														
Total	B/SC			11	0	4	0	4	0	0	0	4	0	4	0	4	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38

Shaded cells indicate Tier III validation (all other cells are Tier II validation). Sample counts do not include MS, MSD, or DUP's.

16739ST.wpd